

RE: 2412-1161-A - Stonefield Rev 3-Elev 1-Floor

Trenco
 818 Soundside Rd
 Edenton, NC 27932

Site Information:

Project Customer: DRB Raleigh Project Name: DRB Raleigh Model Track

Lot/Block: Subdivision: DRB Raleigh

Model:

Address:

City:

State:

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

Design Code: IRC2021/TPI2014

Design Program: MiTek 20/20 25.2

Wind Code: ASCE 7-16

Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-16

Wind Speed: 115 mph

Floor Load: N/A psf

Roof Load: 50.0 psf

Mean Roof Height (feet): 25

Exposure Category: B

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I74582434	1F6	7/2/25	35	I74582468	2FGE3A	7/2/25
2	I74582435	1F7	7/2/25	36	I74582469	2F1A	7/2/25
3	I74582436	1F7A	7/2/25	37	I74582470	2F24	7/2/25
4	I74582437	1F8A	7/2/25	38	I74582471	2F1	7/2/25
5	I74582438	1F8	7/2/25	39	I74582472	2F2	7/2/25
6	I74582439	1F9	7/2/25	40	I74582473	2F25	7/2/25
7	I74582440	1F10	7/2/25	41	I74582474	2F2A	7/2/25
8	I74582441	1F10A	7/2/25		I74582475	2F3A	7/2/25
9	I74582442	1F10B	7/2/25	43	I74582476	2F4	7/2/25
10	I74582443	1F13B	7/2/25	44	I74582477	2F5	7/2/25
11	I74582444	1F13A	7/2/25	45	I74582478	2F3	7/2/25
12	I74582445	1F13	7/2/25	46	I74582479	2F14A	7/2/25
13	I74582446	1FGE9	7/2/25	47	I74582480	2F20	7/2/25
14	I74582447	1F1	7/2/25	48	I74582481	2F19	7/2/25
	I74582448	1FGE1	7/2/25	49	I74582482	2F7	7/2/25
16	I74582449	1FGE5	7/2/25	50	I74582483	2F6	7/2/25
17	I74582450	1F11	7/2/25		I74582484	2F8	7/2/25
18	I74582451	1F12	7/2/25	52	I74582485	2F9	7/2/25
19	I74582452	1FGE6	7/2/25	53	I74582486	2F11	7/2/25
20	I74582453	1FGE3	7/2/25	54	I74582487	2FGE2	7/2/25
21	I74582454	1FGE2A	7/2/25	55	I74582488	2F3B	7/2/25
22	I74582455	1F2A	7/2/25	56	I74582489	2F14	7/2/25
23	I74582456	1F3	7/2/25	57	I74582490	2FGE5	7/2/25
	I74582457	1F4	7/2/25	58	I74582491	2F21	7/2/25
25	I74582458	1F5A	7/2/25	59	I74582492	2F16	7/2/25
26	I74582459	1FGE7	7/2/25		I74582493	2F18	7/2/25
27	I74582460	1FGE8	7/2/25	61	I74582494	2F22	7/2/25
28	I74582461	1F9B	7/2/25	62	I74582495	2FGE4	7/2/25
29	I74582462	1F9A	7/2/25	63	I74582496	2F23	7/2/25
30	I74582463	1FGE4	7/2/25	64	I74582497	2F15	7/2/25
31	I74582464	1FGE2	7/2/25	65	I74582498	2FGR3	7/2/25
32	I74582465	1F2	7/2/25	66	I74582499	2F12	7/2/25
	I74582466	1F5	7/2/25	67	I74582500	2F13	7/2/25
34	I74582467	2FGE1A	7/2/25	68	I74582501	2FGE2A	7/2/25

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Structural, LLC.

Truss Design Engineer's Name: Galinski, John

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

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.



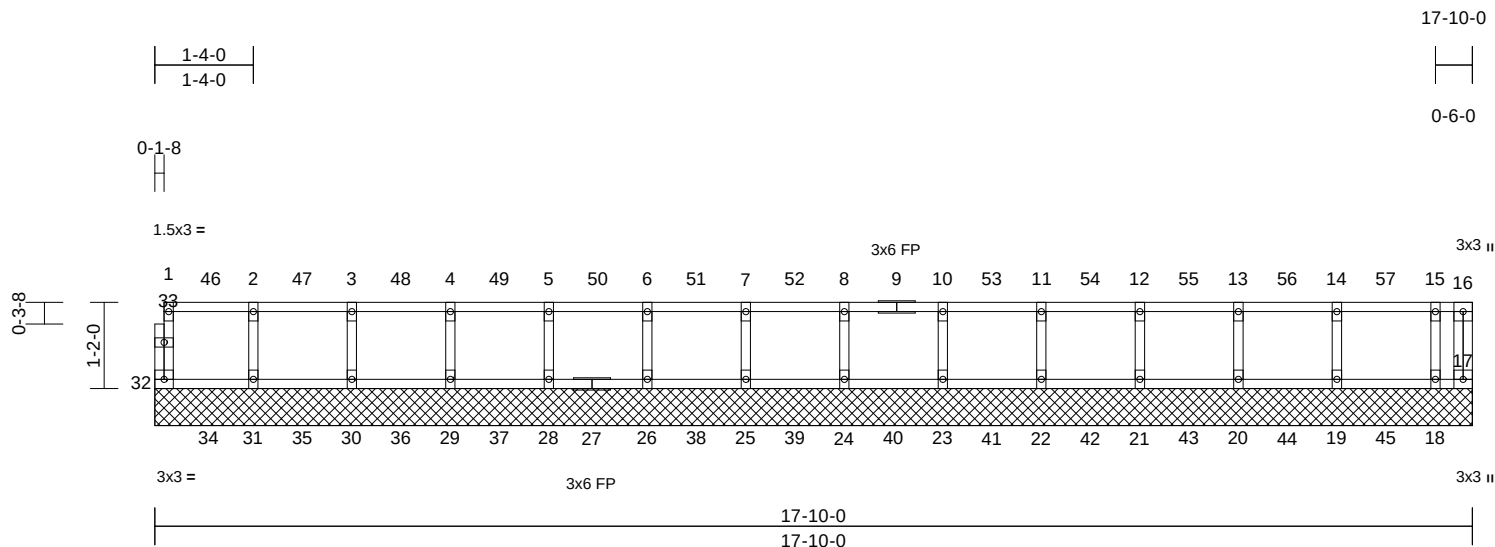
July 2, 2025

RE: 2412-1161-A - Stonefield Rev 3-Elev 1-Floor

Trenco
818 Soundside Rd
Edenton, NC 27932

No.	Seal#	Truss Name	Date
69	I74582502	2FGR2	7/2/25
70	I74582503	2FGR3A	7/2/25
71	I74582504	2FGE1	7/2/25
72	I74582505	2FGE3	7/2/25
73	I74582506	2F3C	7/2/25
74	I74582507	2F3D	7/2/25
75	I74582508	1FGR2	7/2/25
76	I74582509	1FGR1	7/2/25
77	I74582510	1F16	7/2/25
78	I74582511	1FGE10	7/2/25
79	I74582512	1F14	7/2/25
80	I74582513	1FGE11	7/2/25
81	I74582514	1F15	7/2/25

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:35 Page: 1
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Scale = 1:31.2

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.28	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	17	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 76 lb	FT = 20%F, 12%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)

(size)	17=17-10-0, 18=17-10-0, 19=17-10-0, 20=17-10-0, 21=17-10-0, 22=17-10-0, 23=17-10-0, 24=17-10-0, 25=17-10-0, 26=17-10-0, 28=17-10-0, 29=17-10-0, 30=17-10-0, 31=17-10-0, 32=17-10-0
Max Uplift	17=-118 (LC 46), 18=-65 (LC 34), 19=-6 (LC 44), 20=-6 (LC 43), 21=-6 (LC 42), 22=-6 (LC 11), 23=-6 (LC 40), 24=-6 (LC 39), 25=-6 (LC 41), 26=-6 (LC 40), 28=-6 (LC 39), 29=-7 (LC 38), 30=-6 (LC 37), 31=-7 (LC 36), 32=-21 (LC 35)
Max Grav	17=254 (LC 62), 18=279 (LC 46), 19=281 (LC 60), 20=279 (LC 59), 21=280 (LC 58), 22=280 (LC 57), 23=280 (LC 56), 24=280 (LC 55), 25=280 (LC 54), 26=280 (LC 53), 28=280 (LC 52), 29=280 (LC 51), 30=280 (LC 50), 31=280 (LC 49), 32=263 (LC 48)

FORCES

(Ib) - Maximum Compression/Maximum Tension

TOP CHORD

1-32=-257/25, 16-17=-247/111, 1-2=-28/7,
2-3=-28/7, 3-4=-28/7, 4-5=-28/7, 5-6=-28/7,
6-7=-28/7, 7-8=-28/7, 8-10=-28/7,
10-11=-28/7, 11-12=-28/7, 12-13=-28/7,
13-14=-28/7, 14-15=-28/7, 15-16=-28/7

BOT CHORD

31-32=-7/28, 30-31=-7/28, 29-30=-7/28,
28-29=-7/28, 26-28=-7/28, 25-26=-7/28,
24-25=-7/28, 23-24=-7/28, 22-23=-7/28,
21-22=-7/28, 20-21=-7/28, 19-20=-7/28,
18-19=-7/28, 17-18=-7/28

WEBS

2-31=-268/16, 3-30=-269/14, 4-29=-269/14,
5-28=-269/14, 6-26=-269/14, 7-25=-269/14,
8-24=-269/14, 10-23=-269/14,
11-22=-269/15, 12-21=-269/14,
13-20=-268/14, 14-19=-269/14,
15-18=-262/44

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) N/A
- 6) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 7) 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.
- 8) CAUTION. Do not erect truss backwards.

LOAD CASE(S) Standard



July 2, 2025



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



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Edenton, NC 27932

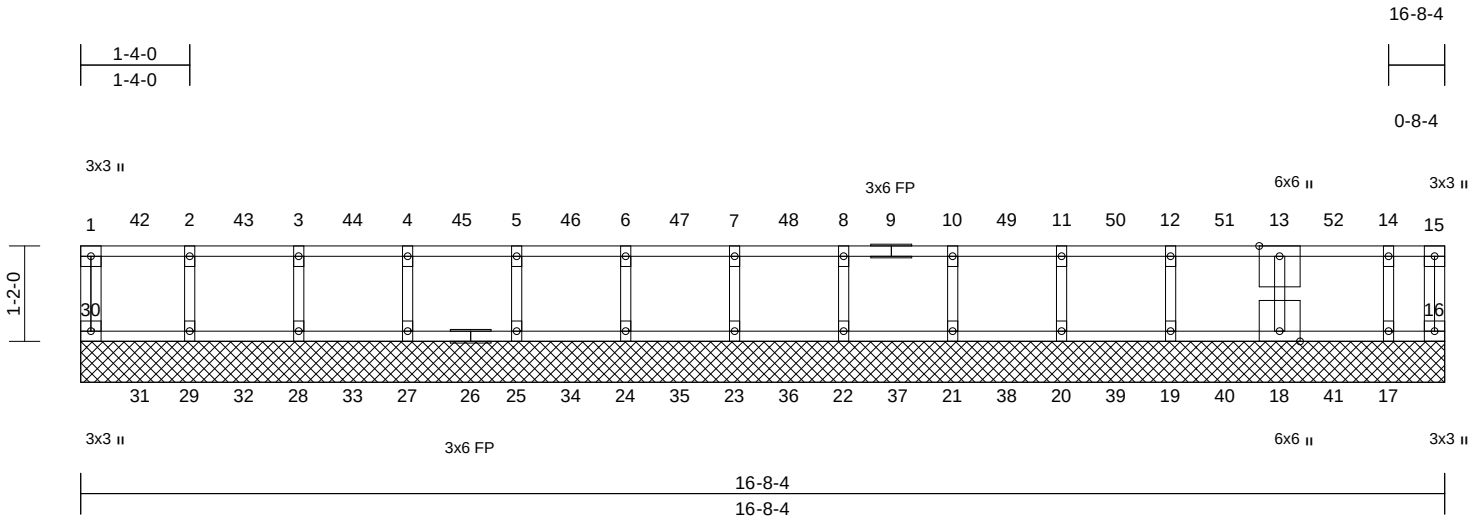
Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	2FGE3A	Floor Supported Gable	3	1	174582468
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:36

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Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.33	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.31	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.92	Horiz(TL)	0.00	16	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							
										Weight: 118 lb	FT = 20%F, 12%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)

WEBS

2-29=-269/15, 3-28=-268/14, 4-27=-269/14,
5-25=-269/14, 6-24=-269/14, 7-23=-269/15,
8-22=-268/14, 10-21=-271/11, 11-20=-258/24,
12-19=-295/0, 13-18=-4231/0, 14-17=-303/0

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.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 30, 94 lb uplift at joint 16, 5 lb uplift at joint 29, 5 lb uplift at joint 28, 5 lb uplift at joint 27, 6 lb uplift at joint 25, 8 lb uplift at joint 24, 6 lb uplift at joint 23, 6 lb uplift at joint 22, 3 lb uplift at joint 21 and 16 lb uplift at joint 20.
- 6) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 7) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 8) 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
- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 16-30=-7, 1-15=-67
Concentrated Loads (lb)
Vert: 13=-4000

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)	16=16-8-4, 17=16-8-4, 18=16-8-4, 19=16-8-4, 20=16-8-4, 21=16-8-4, 22=16-8-4, 23=16-8-4, 24=16-8-4, 25=16-8-4, 27=16-8-4, 28=16-8-4, 29=16-8-4, 30=16-8-4
Max Uplift	16=-94 (LC 41), 20=-16 (LC 37), 21=-3 (LC 36), 22=-6 (LC 35), 23=-6 (LC 11), 24=-8 (LC 33), 25=-6 (LC 35), 27=-5 (LC 34), 28=-5 (LC 7), 29=-5 (LC 32), 30=-20 (LC 31)
Max Grav	16=233 (LC 56), 17=317 (LC 42), 18=4242 (LC 54), 19=306 (LC 53), 20=269 (LC 52), 21=282 (LC 51), 22=279 (LC 50), 23=280 (LC 49), 24=280 (LC 48), 25=280 (LC 47), 27=280 (LC 46), 28=279 (LC 45), 29=282 (LC 44), 30=262 (LC 43)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-30=-259/24, 15-16=-227/99, 1-2=-24/8, 2-3=-24/8, 3-4=-24/8, 4-5=-24/8, 5-6=-24/8, 6-7=-24/8, 7-8=-24/8, 8-10=-24/8, 10-11=-24/8, 11-12=-24/8, 12-13=-24/8, 13-14=-24/8, 14-15=-24/8
BOT CHORD	29-30=-8/24, 28-29=-8/24, 27-28=-8/24, 25-27=-8/24, 24-25=-8/24, 23-24=-8/24, 22-23=-8/24, 21-22=-8/24, 20-21=-8/24, 19-20=-8/24, 18-19=-8/24, 17-18=-8/24, 16-17=-8/24



July 2,2025

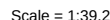
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

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Edenton, NC 27932

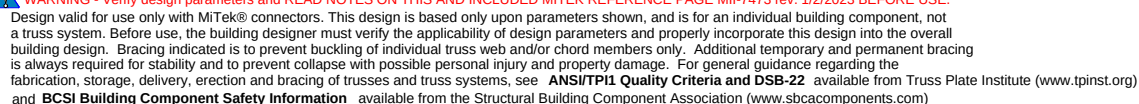
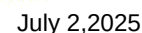
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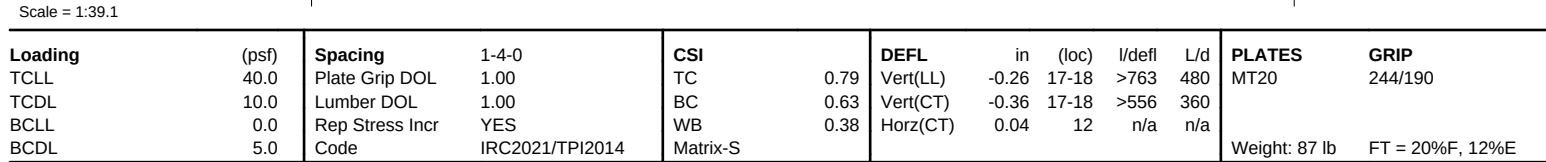
Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.63	Vert(LL)	-0.32	17-18	>665	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.96	Vert(CT)	-0.45	17-18	>483	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.06	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 92 lb	FT = 20%F, 12%E

LOAD CASE(S) Standard

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.



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NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Refer to girder(s) for truss to truss connections.
- 3) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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.

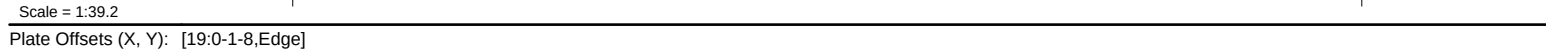


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LUMBER		4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
TOP CHORD	2x4 SP No.2(flat)	
BOT CHORD	2x4 SP SS(flat) *Except* 16-13:2x4 SP No.2 (flat)	
WEBS	2x4 SP No.3(flat)	5) CAUTION, Do not erect truss backwards.
OTHERS	2x4 SP No.3(flat)	LOAD CASE(S) Standard

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.



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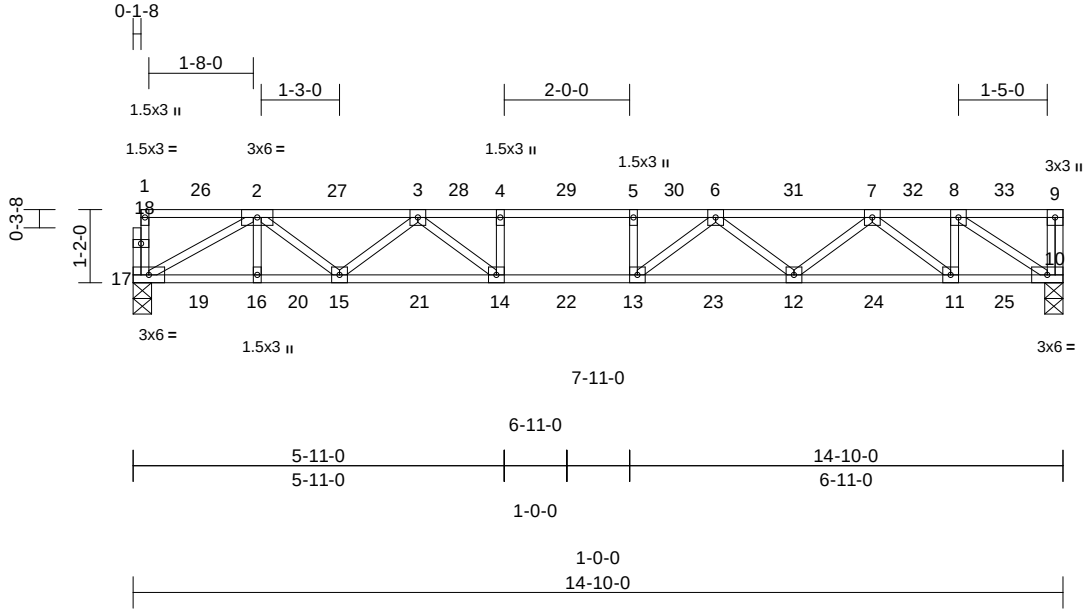
Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor	
2412-1161-A	2F2	Floor	3	1	Job Reference (optional)	I74582472

Structural, LLC, Thurmont, MD - 21788,

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Scale = 1:36.8												
Loading	(psf)	Spacing	1-4-0	CSI		DEFL					PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.62	Vert(LL)	-0.16	12-13	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.46	Vert(CT)	-0.20	12-13	>870	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.02	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 76 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
 BOT CHORD 2x4 SP SS(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) 10=0-3-8, 17=0-3-8
 Max Grav 10=535 (LC 1), 17=531 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-17=-262/19, 9-10=-262/4, 1-2=-16/1, 2-3=-1238/0, 3-4=-1833/0, 4-5=-1833/0, 5-6=-1833/0, 6-7=-1506/0, 7-8=-740/0, 8-9=0/0
 BOT CHORD 16-17=0/861, 15-16=0/861, 14-15=0/1598, 13-14=0/1833, 12-13=0/1760, 11-12=0/1216, 10-11=0/740
 WEBS 4-14=-209/83, 5-13=-172/120, 2-15=0/550, 3-15=-468/0, 3-14=-152/443, 2-16=-73/254, 2-17=-984/0, 8-11=0/388, 7-11=-607/0, 7-12=0/424, 6-12=-331/53, 6-13=-251/308, 8-10=-883/0

- NOTES**
- Unbalanced floor live loads have been considered for this design.
 - All plates are 3x3 (=) MT20 unless otherwise indicated.
 - This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
 - 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.



July 2, 2025

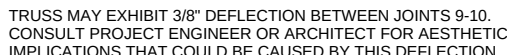
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:35 Page: 1
ID:xERO2q4qqUEJ?JhKoPDf6uv9neq-RfC?PsB70Hg3NSqPanL8w3ulTXbGKWrCDoI7J4zJC?f



Scale = 1:45

LUMBER
TOP CHORD 2x4 SP No.2(flat) *Except* 7-12:2x4 SP SS (flat)
BOT CHORD 2x4 SP SS(flat)
WEBS 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) 13= Mechanical, 24=0-3-8
Max Grav 13=725 (LC 1), 24=725 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-24=-261/23, 12-13=-268/20, 1-2=0/0, 2-3=-1695/0, 3-4=-2737/0, 4-5=-2737/0, 5-6=-3283/0, 6-8=-3444/0, 8-9=-2735/0, 9-10=-2735/0, 10-11=-1807/0, 11-12=0/0
BOT CHORD 23-24=0/1070, 22-23=0/2296, 21-22=0/3111, 20-21=0/3432, 19-20=0/3432, 18-19=0/3287, 17-18=0/2735, 15-17=0/2735, 14-15=0/1139, 13-14=0/1139
WEBS 9-18=-47/267, 10-17=0/383, 2-24=-1266/0, 2-23=0/813, 3-23=-782/0, 5-22=-477/11, 5-21=-66/303, 6-21=-272/202, 6-20=-122/213, 6-19=-166/332, 8-19=-59/320, 8-18=-786/0, 11-15=0/852, 10-15=-1185/0, 11-14=-7/269, 11-13=-1314/0, 4-22=-253/73, 3-22=0/563

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) Refer to girder(s) for truss to truss connections.
- 4) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.

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



July 2, 2025



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



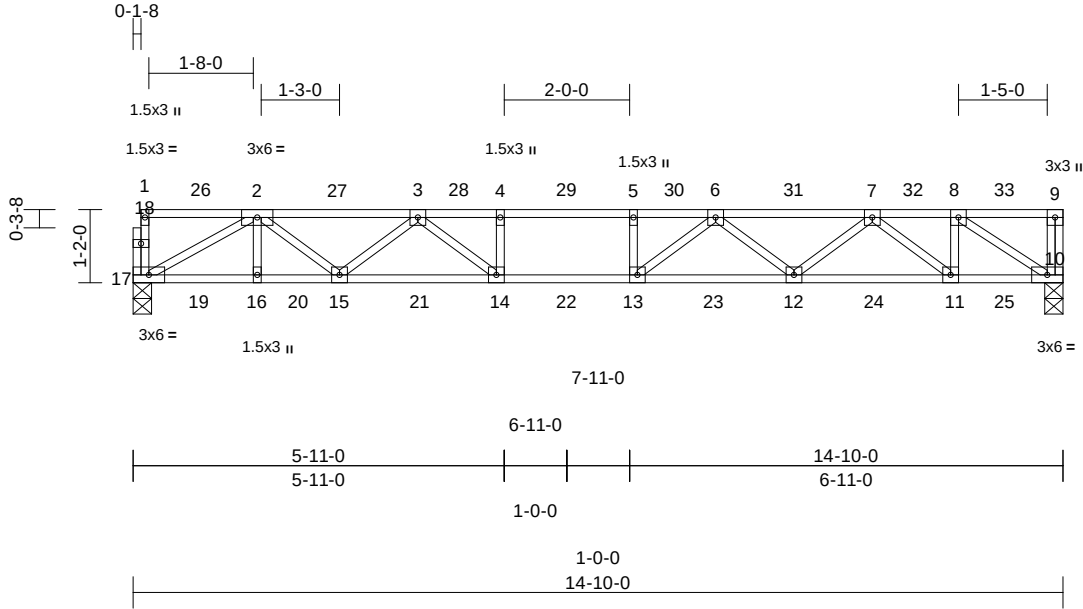
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor	
2412-1161-A	2F2A	Floor	6	1	Job Reference (optional)	I74582474

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:30
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Page: 1



Scale = 1:36.8

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.63	Vert(LL)	-0.16	12-13	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.47	Vert(CT)	-0.21	12-13	>836	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.03	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 76 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP SS(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) 10=0-3-8, 17=0-3-8
Max Grav 10=642 (LC 1), 17=637 (LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-17=-263/17, 9-10=-264/2, 1-2=-16/1,
2-3=-1486/0, 3-4=-2200/0, 4-5=-2200/0,
5-6=-2200/0, 6-7=-1807/0, 7-8=-888/0,
8-9=0/0

BOT CHORD 16-17=0/1033, 15-16=0/1033, 14-15=0/1918,
13-14=0/2200, 12-13=0/2112, 11-12=0/1459,
10-11=0/888

WEBS 4-14=-226/77, 5-13=-174/118, 2-15=0/579,
3-15=-562/0, 3-14=-134/531, 2-16=-71/256,
2-17=-1181/0, 8-11=0/465, 7-11=-729/0,
7-12=0/453, 6-12=-397/37, 6-13=-245/358,
8-10=-1059/0

NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are 3x3 (=) MT20 unless otherwise indicated.
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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.



July 2, 2025

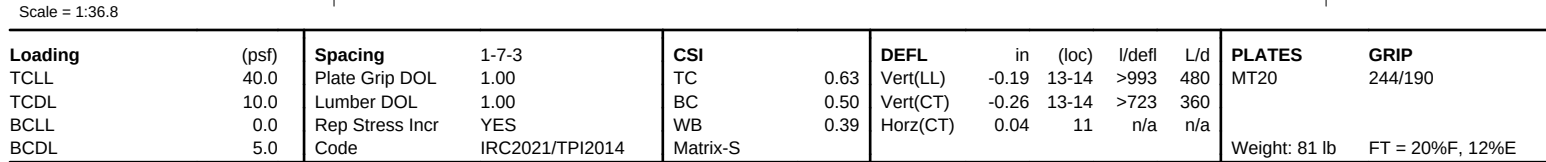
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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)

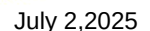
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818 Soundside Road
Edenton, NC 27932

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:30 Page: 1
ID:bX9xZnLSAl0R9cdVwRTbQy9neU-RfC?PsB70Hg3NSgPqnL8w3ulTXbGKwRCDoi7J4zJC?f



LOAD CASE(S) Standard



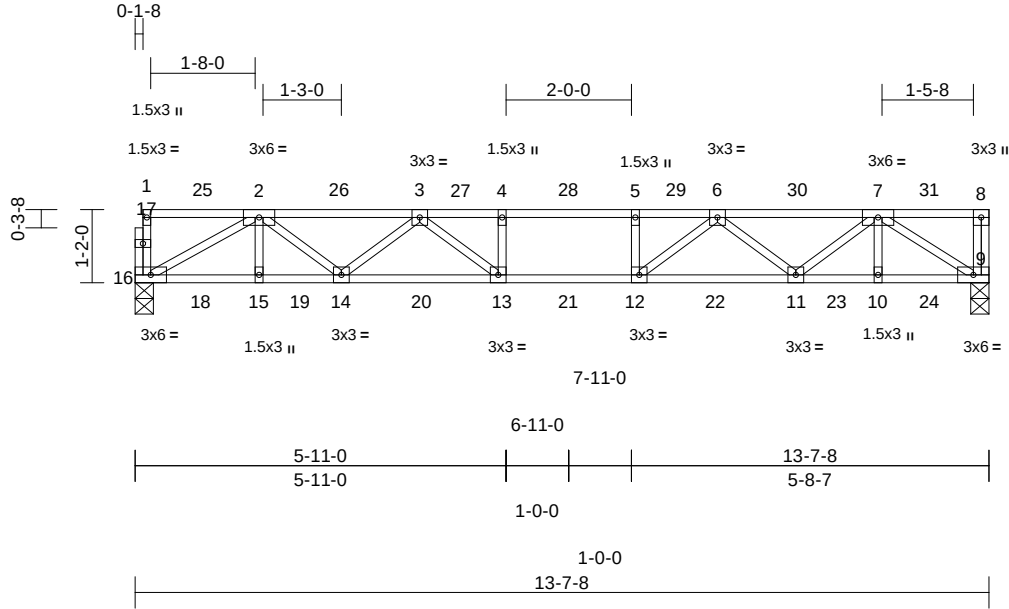
Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor	
2412-1161-A	2F4	Floor	8	1	Job Reference (optional)	I74582476

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:31

Page: 1

ID:bX9xZnDLsAl0R9cdVwRtbQy9neU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRCDoi7J4zJC?f



Scale = 1:36.8													
Loading	(psf)	Spacing	1-4-0	CSI		DEFL		in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.61	Vert(LL)	-0.15	13-14	>999	480	MT20	244/190	
TCDL	10.0	Lumber DOL	1.00	BC	0.89	Vert(CT)	-0.18	13-14	>884	360			
BCLL	0.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.02	9	n/a	n/a			
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S								Weight: 70 lb	FT = 20%F, 12%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) 9=0-3-8, 16=0-3-8
 Max Grav 9=490 (LC 1), 16=486 (LC 1)

FORCES (lb) - Maximum Compression/Maximum
 Tension
 TOP CHORD 1-16=-262/19, 8-9=-260/24, 1-2=-16/1,
 2-3=-1113/0, 3-4=-1546/0, 4-5=-1546/0,
 5-6=-1546/0, 6-7=-1057/0, 7-8=0/0
 BOT CHORD 15-16=0/780, 14-15=0/780, 13-14=0/1409,
 12-13=0/1546, 11-12=0/1375, 10-11=0/708,
 9-10=0/708
 WEBS 4-13=-186/111, 5-12=-196/102, 2-14=0/524,
 3-14=-385/13, 3-13=-201/351, 2-15=-74/253,
 2-16=-891/0, 7-11=0/536, 6-11=-414/0,
 6-12=-177/375, 7-10=-77/253, 7-9=-837/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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



July 2, 2025

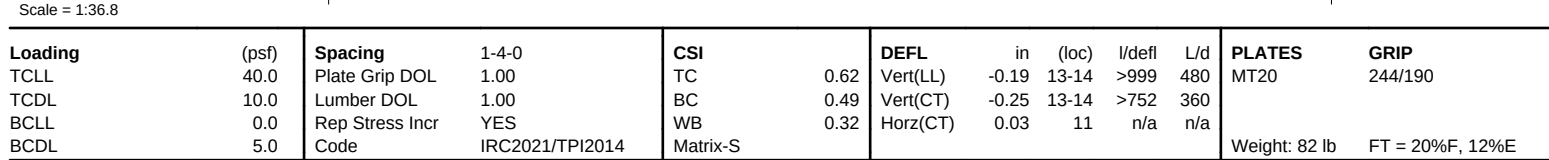
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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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Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:31 Page: 1
ID:3kjn7E_cUtt3JBq3dyi8ey9neT-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



NOTES

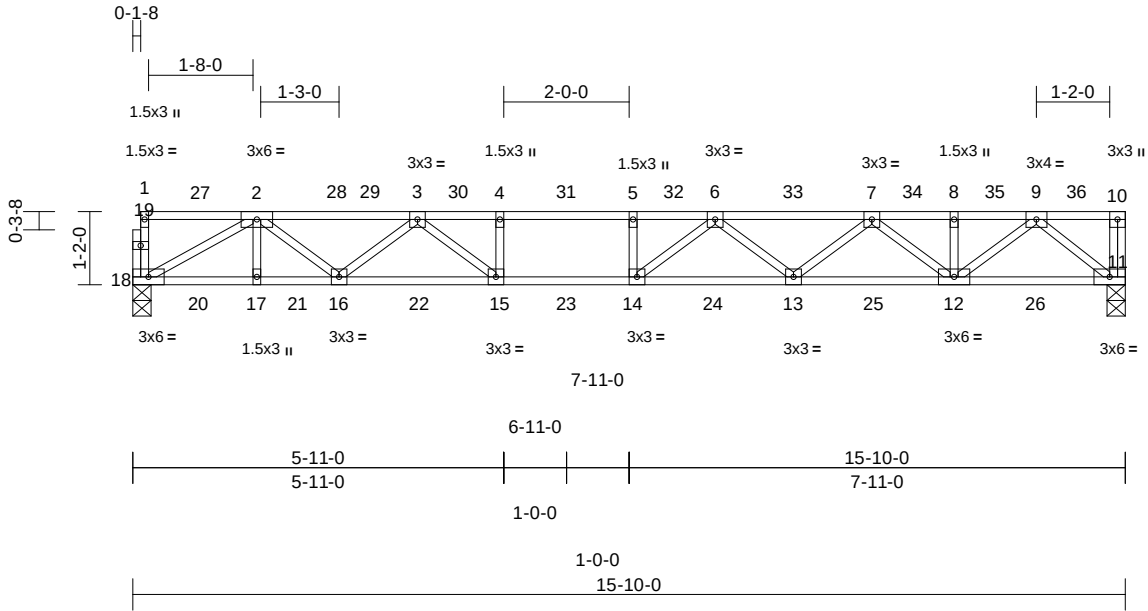
- 1) Unbalanced floor live loads have been considered for this design.
- 2) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 3) 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.

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

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



Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	2F3	Floor	20	1	174582478
Job Reference (optional)					



Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.74	Vert(LL)	-0.18	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.53	Vert(CT)	-0.24	13-14	>767	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.33	Horz(CT)	0.03	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 81 lb	FT = 20%F, 12%E

LUMBER	
TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP SS(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, 18=0-3-8	
Max Grav 11=575 (LC 1), 18=596 (LC 1)	
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-18=-268/13, 10-11=-260/12, 1-2=-16/1, 2-3=-1386/0, 3-4=-2105/0, 4-5=-2105/0, 5-6=-2105/0, 6-7=-1896/0, 7-8=-1199/0, 8-9=-1199/0, 9-10=0/0
BOT CHORD	17-18=0/969, 16-17=0/969, 15-16=0/1799, 14-15=0/2105, 13-14=0/2103, 12-13=0/1644, 11-12=0/661
WEBS	4-15=-221/76, 5-14=-158/137, 2-16=0/572, 3-16=-538/0, 3-15=-128/522, 2-17=-71/255, 2-18=-1108/0, 9-11=-848/0, 9-12=0/688, 8-12=-261/57, 7-12=-568/0, 7-13=0/397, 6-13=-269/87, 6-14=-300/273

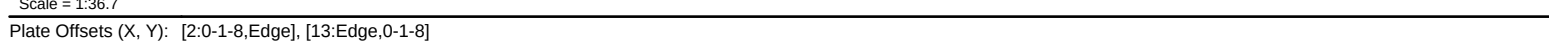
- NOTES**
- Unbalanced floor live loads have been considered for this design.
 - Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
 - 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
 - Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 11-18=-7, 1-29=-76, 10-29=-67



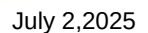
July 2,2025

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:33 Page: 1
ID:xERO2g4qgUEj?JhKoPDf6uy9neg-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWCrD0i7J4zJC?f



LUMBER		
TOP CHORD	2x4 SP No.2(flat) *Except* 7-12:2x4 SP SS (flat)	5) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
BOT CHORD	2x4 SP SS(flat)	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.
WEBS	2x4 SP No.3(flat)	
BRACING		
TOP CHORD	Structural wood sheathing directly applied or 5-2-11 oc purlins, except end verticals.	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	
REACTIONS		LOAD CASE(S) Standard
	(size) 13= Mechanical, 24=0-3-8	1) Dead + Floor Live (balanced): Lumber Increase=1.00,
	Max Grav 13=1411 (LC 1), 24=765 (LC 1)	Plate Increase=1.00
FORCES		Uniform Loads (lb/ft)
	(lb) - Maximum Compression/Maximum Tension	Vert: 13-24=-7, 1-12=-67
TOP CHORD	1-24=-264/0, 12-13=-267/22, 1-2=0/0, 2-3=-1241/0, 3-4=-2570/0, 4-5=-2570/0, 5-6=-3388/0, 6-8=-3813/0, 8-9=-3521/0, 9-10=-3521/0, 10-11=-2850/0, 11-12=0/0	Concentrated Loads (lb)
BOT CHORD	23-24=0/1241, 22-23=0/1959, 21-22=0/3078, 19-21=0/3689, 18-19=0/3689, 17-18=0/3821, 16-17=0/3521, 15-16=0/3521, 14-15=0/2326, 13-14=0/2326	Vert: 11=-800
WEBS	9-17=-138/185, 10-16=-77/321, 11-15=0/698, 10-15=-1009/60, 11-14=-40/242, 11-13=-2683/0, 5-21=0/451, 6-19=-102/233, 6-18=-50/448, 8-18=-230/152, 8-17=-626/228, 5-22=-649/0, 6-21=-432/39, 4-22=-259/69, 3-22=0/781, 3-23=-916/0, 2-23=0/583, 2-24=-1427/0	

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.



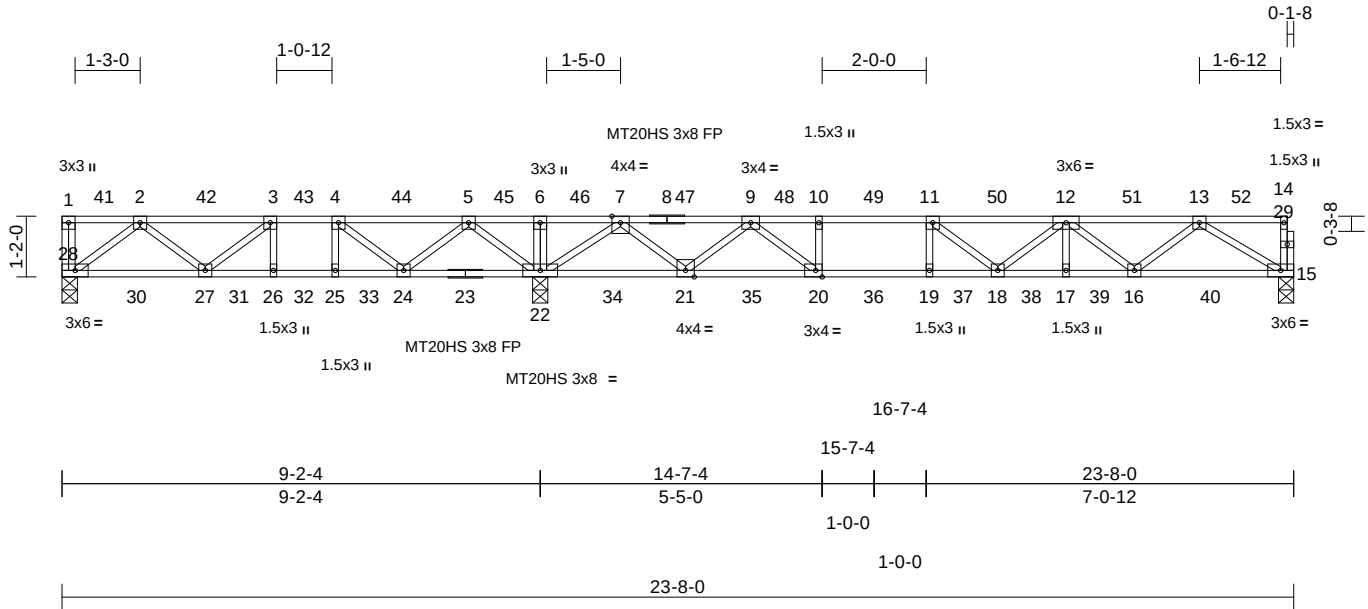
Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	2F20	Floor	8	1	174582480
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.20 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:34

Page: 1

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Scale = 1:44.3

Plate Offsets (X, Y): [20:0-1-8,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	0.88	Vert(LL)	-0.18	18-19	>950	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.75	Vert(CT)	-0.25	18-19	>698	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.03	15	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S								
Weight: 120 lb											FT = 20%F, 12%E	

LUMBER

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat) *Except* 23-15:2x4 SP SS (flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

BRACING

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS	(size) 15=0-3-8, 22=0-3-8, 28=0-3-8
Max Grav	15=716 (LC 4), 22=1501 (LC 1), 28=437 (LC 3)

FORCES

TOP CHORD	(lb) - Maximum Compression/Maximum Tension
	1-28=-258/43, 14-15=-266/22, 1-2=0/0, 2-3=-702/27, 3-4=-833/161, 4-5=-478/415, 5-6=0/1135, 6-7=0/1135, 7-9=-897/6, 9-10=-2141/0, 10-11=-2141/0, 11-12=-2187/0, 12-13=-1557/0, 13-14=-16/1
BOT CHORD	27-28=0/522, 26-27=-161/833, 25-26=-161/833, 24-25=-161/833, 22-24=-629/145, 21-22=-217/252, 20-21=0/1579, 19-20=0/2141, 18-19=0/2141, 17-18=0/2050, 16-17=0/2050, 15-16=0/1045
WEBS	6-22=-276/48, 10-20=-315/11, 11-19=-255/99, 9-20=0/845, 7-22=-1406/0, 7-21=0/865, 9-21=-923/0, 2-28=-655/0, 5-22=-920/0, 2-27=-70/317, 5-24=0/557, 3-27=-191/219, 4-24=-623/0, 3-26=-181/126, 4-25=-56/219, 13-15=-1224/0, 13-16=0/667, 12-16=-630/43, 12-17=-126/228, 12-18=-99/316, 11-18=-153/323

NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.

- All plates are 3x3 (=) MT20 unless otherwise indicated.
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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



July 2,2025

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

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

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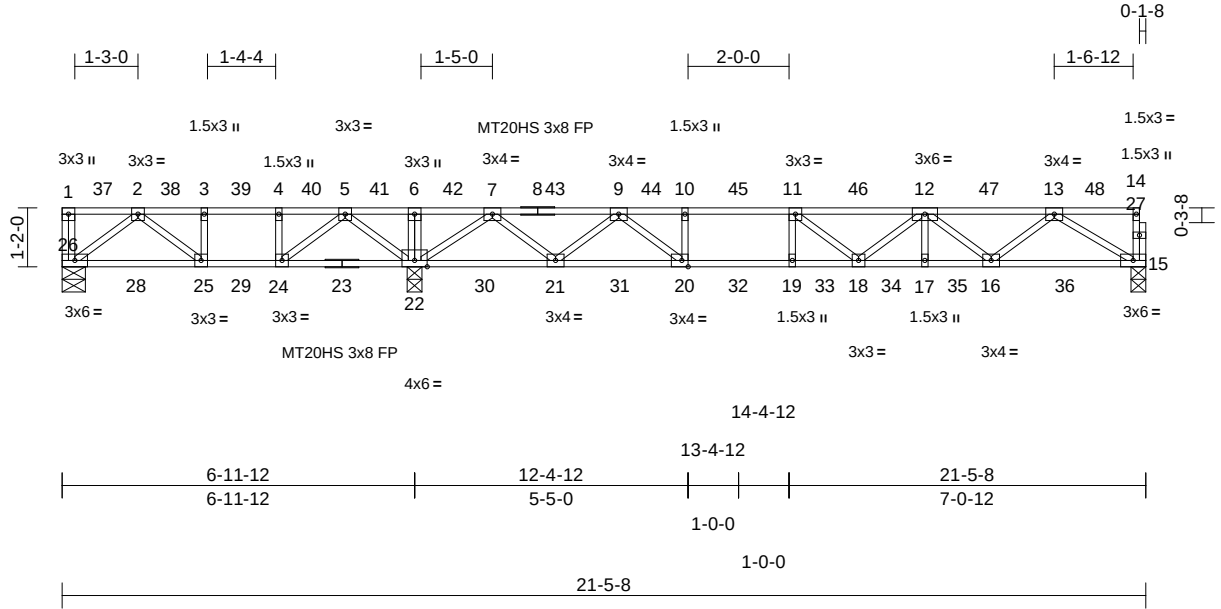
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor	
2412-1161-A	2F19	Floor	8	1	Job Reference (optional)	I74582481

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:34
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Page: 1



Scale = 1:45.6

Plate Offsets (X, Y): [20:0-1-8,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	0.88	Vert(LL)	-0.18	18-19	>954	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.87	Vert(CT)	-0.25	18-19	>702	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.03	15	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S								
											Weight: 109 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat) *Except* 23-15:2x4 SP SS (flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

BRACING

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS	(size)	15=0-3-8, 22=0-3-8, 26=0-5-8
	Max Uplift	26=-8 (LC 4)
	Max Grav	15=733 (LC 7), 22=1348 (LC 1), 26=332 (LC 3)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-26=-261/14, 14-15=-266/22, 1-2=0/0, 2-3=-458/194, 3-4=-458/194, 4-5=-458/194, 5-6=0/842, 6-7=0/843, 7-9=-1093/0, 9-10=-2272/0, 10-11=-2272/0, 11-12=-2279/0, 12-13=-1605/0, 13-14=-16/1
BOT CHORD	25-26=-42/347, 24-25=-194/458, 22-24=-472/182, 21-22=-136/459, 20-21=0/1750, 19-20=0/2272, 18-19=0/2272, 17-18=0/2120, 16-17=0/2120, 15-16=0/1073
WEBS	6-22=-285/19, 10-20=-298/20, 11-19=-233/111, 2-26=-435/53, 5-22=-689/0, 2-25=-194/223, 5-24=0/576, 3-25=-159/103, 4-24=-279/3, 13-15=-1257/0, 13-16=0/692, 12-16=-657/32, 12-17=-125/230, 12-18=-88/327, 11-18=-216/302, 7-22=-1364/0, 7-21=0/843, 9-21=-883/0, 9-20=0/792

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.

- 3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 26.
- 4) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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.
- 6) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



July 2,2025

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

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

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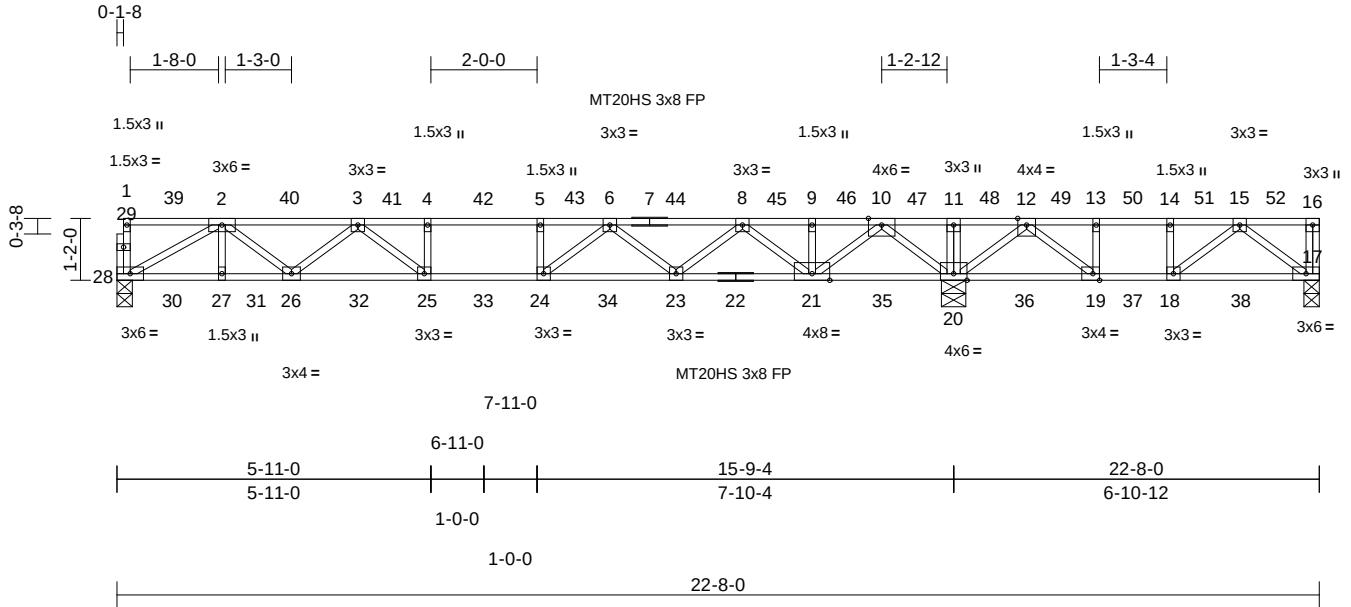
Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	2F7	Floor	4	1	174582482
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:31

Page: 1

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Scale = 1:43.4

Plate Offsets (X, Y): [19:0-1-8,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	0.75	Vert(LL)	-0.16	24	>999	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.94	Vert(CT)	-0.22	23-24	>856	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.04	20	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S								
Weight: 116 lb											FT = 20%F, 12%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 2-2-0 oc bracing.

REACTIONS (size) 17=0-3-8, 20=0-5-8, 28=0-3-8
Max Uplift 17=-133 (LC 3)
Max Grav 17=294 (LC 4), 20=1586 (LC 1), 28=755 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-28=-266/15, 16-17=-259/17, 1-2=-16/1, 2-3=-1743/0, 3-4=-2486/0, 4-5=-2486/0, 5-6=-2486/0, 6-8=-1847/0, 8-9=-603/56, 9-10=-603/56, 10-11=0/1626, 11-12=0/1627, 12-13=-340/593, 13-14=-340/593, 14-15=-340/593, 15-16=0/0
BOT CHORD 27-28=0/1217, 26-27=0/1217, 25-26=0/2222, 24-25=0/2486, 23-24=0/2286, 21-23=0/1375, 20-21=-486/48, 19-20=-1110/0, 18-19=-593/340, 17-18=-210/297
WEBS 4-25=-245/86, 5-24=-244/87, 11-20=-294/0, 2-26=0/672, 3-26=-624/0, 3-25=-147/529, 2-27=-67/259, 2-28=-1391/0, 10-20=-1438/0, 10-21=0/1211, 9-21=-269/48, 8-21=-1003/0, 8-23=0/631, 6-23=-592/0, 6-24=-154/522, 12-20=-872/0, 15-17=-372/263, 12-19=0/859, 15-18=-490/139, 13-19=-399/0, 14-18=-121/221

NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.

- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17. This connection is for uplift only and does not consider lateral forces.
 - This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
 - 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



July 2,2025

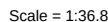
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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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LUMBER

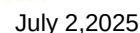
BRACING

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-18=-263/18, 10-11=-262/6, 1-2=-16/1, 2-3=-1630/0, 3-4=-2532/0, 4-5=-2532/0, 5-6=-2532/0, 6-7=-2325/0, 7-8=-1516/0, 8-9=-1516/0, 9-10=0/0
BOT CHORD	17-18=0/1126, 16-17=0/1126, 15-16=0/2136, 14-15=0/2532, 13-14=0/2556, 12-13=0/2035, 11-12=0/887
WEBS	4-15=-273/59, 5-14=-151/144, 2-16=0/644, 3-16=-658/0, 3-15=-83/661, 2-17=-67/259, 2-18=-1288/0, 9-12=0/803, 8-12=-263/54, 7-12=-662/0, 7-13=0/405, 6-13=-301/89, 6-14=-320/291, 9-11=-1090/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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



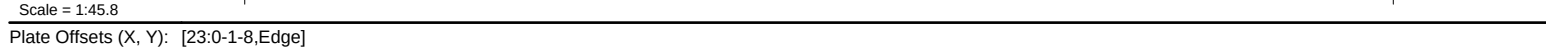
WARNING – Verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MIT-17-15169: 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building design, 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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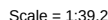
LUMBER		3) All plates are 3x3 (=) MT20 unless otherwise indicated.
TOP CHORD	2x4 SP No.2(flat)	4) Refer to girder(s) for truss to truss connections.
BOT CHORD	2x4 SP No.2(flat)	5) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
WEBS	2x4 SP No.3(flat)	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.
OTHERS	2x4 SP No.3(flat)	7) CAUTION, Do not erect truss backwards.
BRACING		LOAD CASE(S) Standard
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.	
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.	
REACTIONS	(size) 15= Mechanical, 20=0-3-8, 27=0-3-8 Max Grav 15=474 (LC 4), 20=1425 (LC 1), 27=653 (LC 10)	
FORCES	(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-27=-267/14, 14-15=-258/46, 1-2=-16/1, 2-3=-1451/0, 3-4=-1821/0, 4-5=-1821/0, 5-6=-1821/0, 6-8=-811/72, 8-9=0/1035, 9-10=0/1035, 10-11=-578/289, 11-12=-965/50, 12-13=-793/0, 13-14=0/0	
BOT CHORD	26-27=0/1030, 25-26=0/1030, 24-25=0/1787, 23-24=0/1821, 22-23=0/1392, 20-22=-273/233, 19-20=-488/219, 18-19=-50/965, 17-18=-50/965, 16-17=-50/965, 15-16=0/571	
WEBS	4-24=-144/129, 5-23=-316/22, 9-20=-273/58, 2-25=0/560, 3-25=-437/13, 3-24=-254/223, 2-26=-72/254, 2-27=-1177/0, 8-20=-1211/0, 8-22=0/792, 6-22=-805/0, 6-23=0/703, 10-20=-928/0, 13-15=-716/0, 10-19=0/572, 13-16=-24/352, 11-19=-647/0, 12-16=-233/193, 11-18=-44/221, 12-17=-158/136	

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

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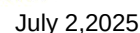
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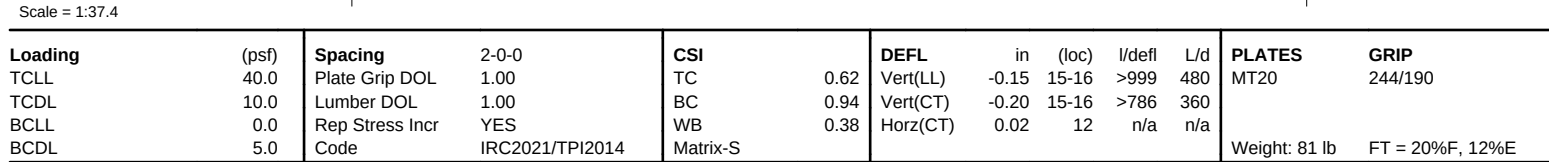
LUMBER		3) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15. This connection is for uplift only and does not consider lateral forces.
TOP CHORD	2x4 SP No.2(flat)	
BOT CHORD	2x4 SP No.2(flat)	
WEBS	2x4 SP No.3(flat)	
OTHERS	2x4 SP No.3(flat)	
BRACING		4) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
TOP CHORD	Structural wood sheathing directly applied or 6'-0" oc purlins, except end verticals.	
BOT CHORD	Rigid ceiling directly applied or 2'-2" oc bracing.	5) Recommend 2x6 strongbacks, on edge, spaced at 10'-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.
REACTIONS	(size) 15=0-3-8, 18=0-3-8, 25=0-3-8	6) CAUTION, Do not erect truss backwards.
	Max Uplift 15=-50 (LC 3)	
	Max Grav 15=304 (LC 60), 18=1284 (LC 1), 25=642 (LC 10)	
		LOAD CASE(S) Standard

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x3 (=) MT20 unless otherwise indicated.



Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:32 Page: 1
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- 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.
- 6) 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.

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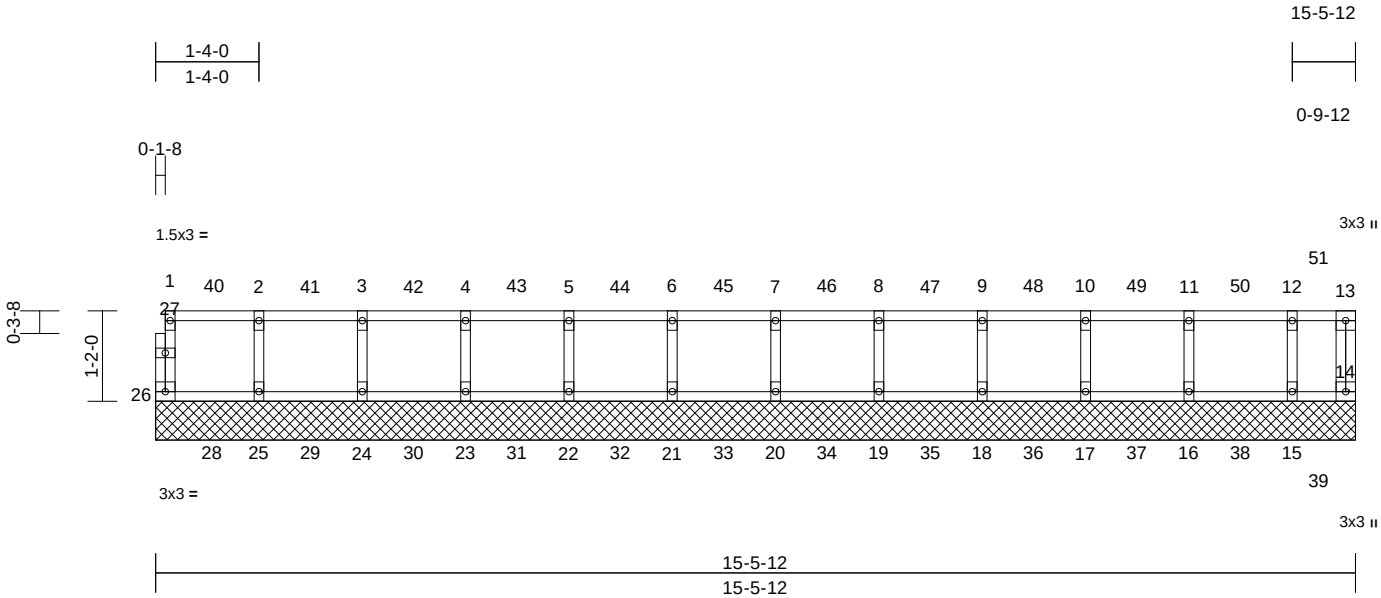


Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	2FGE2	Floor Supported Gable	3	1	Job Reference (optional)
					I74582487

Structural, LLC, Thurmont, MD - 21788,

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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	0.28	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.29	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	14	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 66 lb	FT = 20%F, 12%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=15-5-12, 15=15-5-12,
16=15-5-12, 17=15-5-12,
18=15-5-12, 19=15-5-12,
20=15-5-12, 21=15-5-12,
22=15-5-12, 23=15-5-12,
24=15-5-12, 25=15-5-12,
26=15-5-12
Max Uplift 14=49 (LC 40), 15=16 (LC 30),
26=15 (LC 31)
Max Grav 14=262 (LC 54), 15=284 (LC 53),
16=295 (LC 52), 17=293 (LC 51),
18=293 (LC 50), 19=293 (LC 49),
20=293 (LC 48), 21=293 (LC 47),
22=293 (LC 46), 23=293 (LC 45),
24=293 (LC 44), 25=293 (LC 43),
26=268 (LC 42)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-26=-259/21, 13-14=-257/55, 1-2=-26/6,
2-3=-26/6, 3-4=-26/6, 4-5=-26/6, 5-6=-26/6,
6-7=-26/6, 7-8=-26/6, 8-9=-26/6, 9-10=-26/6,
10-11=-26/6, 11-12=-26/6, 12-13=-26/6
BOT CHORD 25-26=-6/26, 24-25=-6/26, 23-24=-6/26,
22-23=-6/26, 21-22=-6/26, 20-21=-6/26,
19-20=-6/26, 18-19=-6/26, 17-18=-6/26,
16-17=-6/26, 15-16=-6/26, 14-15=-6/26
WEBS 2-25=-277/7, 3-24=-277/5, 4-23=-277/5,
5-22=-277/5, 6-21=-277/5, 7-20=-277/5,
8-19=-277/5, 9-18=-278/5, 10-17=-277/5,
11-16=-278/4, 12-15=-268/21

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) N/A
- 6) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 7) 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.
- 8) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



July 2, 2025

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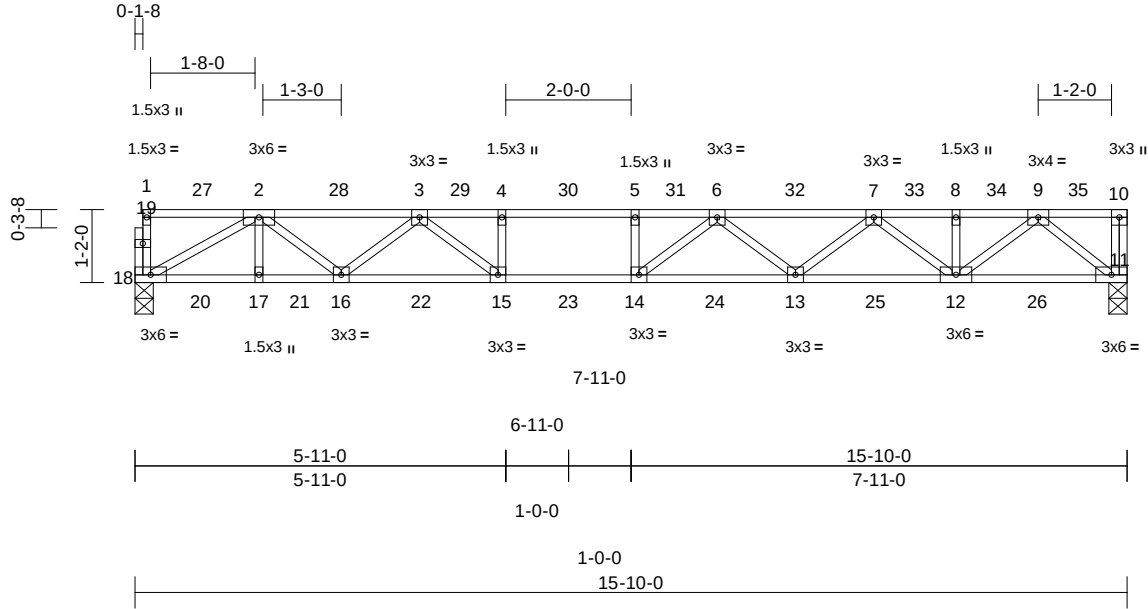
Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor	
2412-1161-A	2F3B	Floor	8	1	Job Reference (optional)	I74582488

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:30

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Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.74	Vert(LL)	-0.19	13-14	>993	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.55	Vert(CT)	-0.26	13-14	>723	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.39	Horz(CT)	0.04	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 81 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP SS(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, 18=0-3-8

Max Grav 11=686 (LC 1), 18=681 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-18=-263/18, 10-11=-261/10, 1-2=-16/1, 2-3=-1611/0, 3-4=-2486/0, 4-5=-2486/0, 5-6=-2486/0, 6-7=-2253/0, 7-8=-1427/0, 8-9=-1427/0, 9-10=0/0
BOT CHORD	17-18=0/1113, 16-17=0/1113, 15-16=0/2106, 14-15=0/2486, 13-14=0/2494, 12-13=0/1955, 11-12=0/787
WEBS	4-15=-267/61, 5-14=-154/141, 2-16=0/635, 3-16=-645/0, 3-15=-90/643, 2-17=-68/259, 2-18=-1274/0, 9-11=-1010/0, 9-12=0/818, 8-12=-263/54, 7-12=-674/0, 7-13=0/411, 6-13=-314/81, 6-14=-310/301

NOTES

- Unbalanced floor live loads have been considered for this design.
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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



July 2, 2025

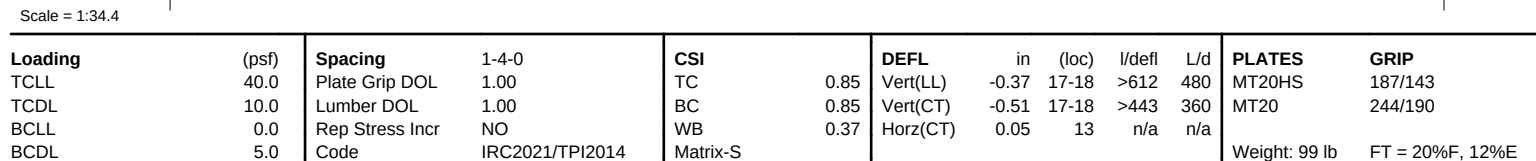
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NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Load case(s) 1, 2, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.

- 5) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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
- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-67
Concentrated Loads (lb)
Vert: 11=-5
- 2) Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-67
Concentrated Loads (lb)
Vert: 11=-5
- 4) 2nd chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-9=-13, 9-12=-67
Concentrated Loads (lb)
Vert: 11=-5
- 6) 4th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-9=-13, 9-12=-67
Concentrated Loads (lb)
Vert: 11=-5
- 7) 1st Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-253, 11=-5
- 8) 2nd Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 34=-253
- 9) 3rd Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 35=-253
- 10) 4th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 36=-253
- 11) 5th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 37=-253
- 



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Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	2F14	Floor	12	1	174582489
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:33

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- | | | |
|--|---|---|
| <p>12) 6th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 38=-253</p> <p>13) 7th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 7=-253, 11=-5</p> <p>14) 8th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 39=-253</p> <p>15) 9th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 40=-253</p> <p>16) 10th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 41=-253</p> <p>17) 11th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 42=-253</p> <p>18) 12th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 12=-253, 11=-5</p> <p>19) 13th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 2=-253</p> <p>20) 14th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 3=-253</p> <p>21) 15th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 4=-253</p> <p>22) 16th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 5=-253</p> <p>23) 17th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 6=-253</p> <p>24) 18th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)</p> | <p>Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 8=-253</p> <p>25) 19th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 9=-253, 11=-5</p> <p>26) 20th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 10=-253, 11=-5</p> <p>27) 21st Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-258</p> <p>28) 22nd Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 25=-253</p> <p>29) 23rd Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 26=-253</p> <p>30) 24th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 27=-253</p> <p>31) 25th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 20=-253, 11=-5</p> <p>32) 26th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 28=-253</p> <p>33) 27th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 29=-253</p> <p>34) 28th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 30=-253</p> <p>35) 29th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 31=-253</p> <p>36) 30th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 32=-253</p> | <p>37) 31st Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 33=-253</p> <p>38) 32nd Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 24=-253</p> <p>39) 33rd Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 23=-253</p> <p>40) 34th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 22=-253</p> <p>41) 35th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 21=-253</p> <p>42) 36th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 19=-253</p> <p>43) 37th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 11=-5, 18=-253</p> <p>44) 38th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 17=-253, 11=-5</p> <p>45) 39th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 16=-253, 11=-5</p> <p>46) 40th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 15=-253, 11=-5</p> <p>47) 41st Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 14=-253, 11=-5</p> <p>48) 42nd Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 13-24=-7, 1-12=-13
Concentrated Loads (lb)
Vert: 13=-253, 11=-5</p> |
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July 2, 2025

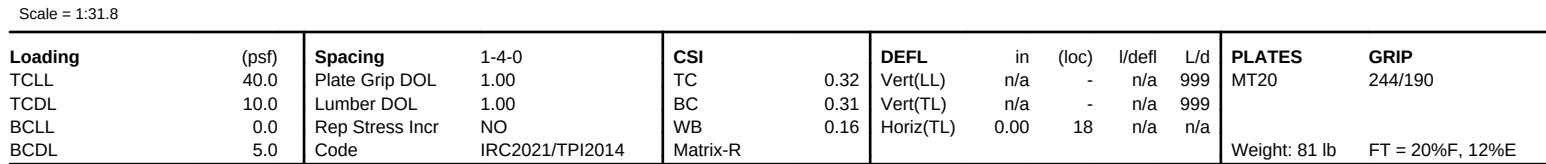
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Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	2F21	Floor	12	1	Job Reference (optional)

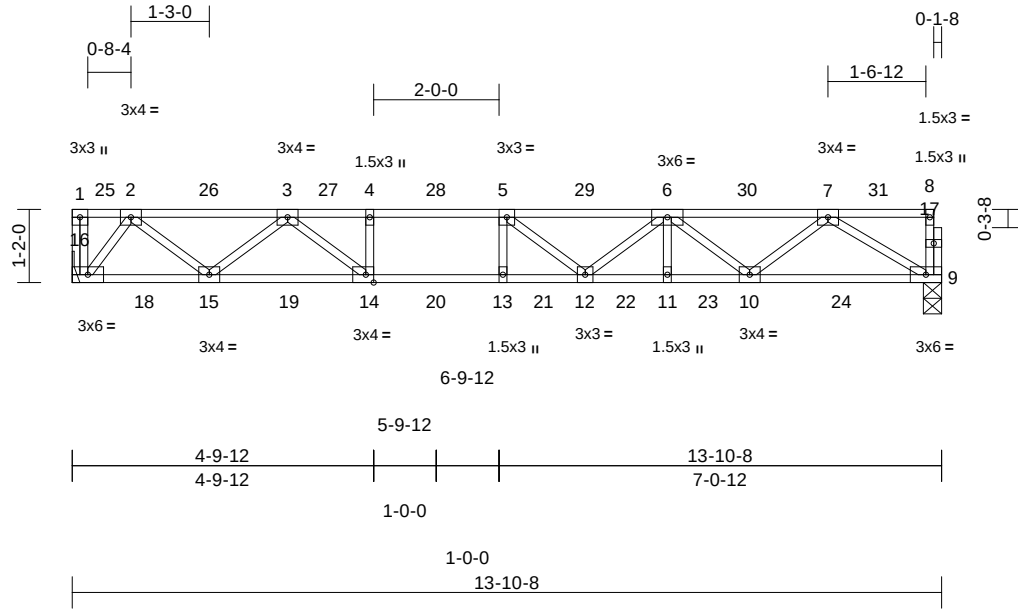
I74582491

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:35

Page: 1

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Scale = 1:36.8

Plate Offsets (X, Y): [14:0-1-8,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	0.88	Vert(LL)	-0.18	12-13	>915	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.62	Vert(CT)	-0.24	12-13	>680	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.03	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 71 lb	FT = 20%F, 12%E

LUMBER

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

BRACING

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) 9=0-3-8, 16= Mechanical
 Max Grav 9=743 (LC 1), 16=749 (LC 1)

FORCES (lb) - Maximum Compression/Maximum
 Tension

TOP CHORD 1-16=-248/85, 8-9=-266/22, 1-2=0/0,
 2-3=-1201/0, 3-4=-2346/0, 4-5=-2346/0,
 5-6=-2330/0, 6-7=-1632/0, 7-8=-16/1
 BOT CHORD 15-16=0/585, 14-15=0/1842, 13-14=0/2346,
 12-13=0/2346, 11-12=0/2158, 10-11=0/2158,
 9-10=0/1089
 WEBS 4-14=-293/28, 5-13=-225/123, 2-16=-951/0,
 2-15=0/802, 3-15=-835/0, 3-14=0/777,
 7-9=-1276/0, 7-10=0/706, 6-10=-673/25,
 6-11=-124/230, 6-12=-84/322, 5-12=-298/298

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Refer to girder(s) for truss to truss connections.
- 3) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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.
- 5) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



July 2,2025

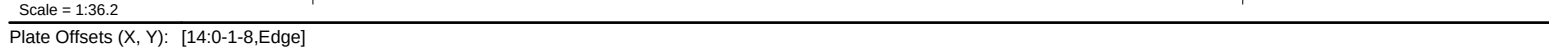
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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

ENGINEERING BY
TRENCO
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818 Soundside Road
 Edenton, NC 27932

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:33 Page: 1
ID:q9o53XdlYSK2A0YXkLFElZoZ27-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRCdoi7J4zJC?i



LUMBER	
TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP SS(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)
BRACING	
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) 9=0-3-8, 16=0-3-8 Max Grav 9=784 (LC 1), 16=791 (LC 1)
FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-16=-263/23, 8-9=-265/23, 1-2=0/0, 2-3=-1667/0, 3-4=-2660/0, 4-5=-2660/0, 5-6=-2549/0, 6-7=-1746/0, 7-8=-16/1
BOT CHORD	15-16=0/1087, 14-15=0/2246, 13-14=0/2660, 12-13=0/2660, 11-12=0/2324, 10-11=0/2324, 9-10=0/1157
WEBS	4-14=-272/51, 5-13=-196/146, 2-16=-1306/0, 2-15=0/755, 3-15=-754/0, 3-14=-69/707, 7-9=-1355/0, 7-10=0/767, 6-10=-738/5, 6-11=-121/234, 6-12=-60/354, 5-12=-398/251

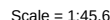
- 1) Unbalanced floor live loads have been considered for this design.
- 2) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 3) 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.

A circular blue ink seal for a North Carolina Professional Engineer. The outer ring contains the text "NORTH CAROLINA" at the top and "ENGINEER" at the bottom. The inner circle contains the text "SEAL" and the number "28677". A signature, "JOHN L. GALINSKI", is written in red ink across the seal.

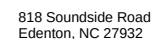
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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



Page: 1

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



Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor	I74582493
2412-1161-A	2F18	Floor	4	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:34

Page: 2

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- | | | |
|---|---|--|
| <p>Vert: 15-26=-10, 1-6=-100, 6-10=-20, 10-14=-100
Concentrated Loads (lb)
Vert: 12=-4</p> <p>11) 5th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-4=-100, 4-6=-20, 6-14=-100
Concentrated Loads (lb)
Vert: 12=-4</p> <p>12) 6th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-3=-20, 3-14=-100
Concentrated Loads (lb)
Vert: 12=-4</p> <p>14) 8th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-6=-100, 6-10=-20, 10-14=-100
Concentrated Loads (lb)
Vert: 12=-4</p> <p>15) 1st Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 1=-253, 12=-4</p> <p>16) 2nd Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 37=-253</p> <p>17) 3rd Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 38=-253</p> <p>18) 4th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 39=-253</p> <p>19) 5th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 40=-253</p> <p>20) 6th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 41=-253</p> <p>21) 7th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 42=-253</p> <p>22) 8th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 43=-253</p> <p>23) 9th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 44=-253</p> | <p>24) 10th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 45=-253</p> <p>25) 11th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 46=-253</p> <p>26) 12th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 47=-253</p> <p>27) 13th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 48=-253</p> <p>28) 14th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 14=-253, 12=-4</p> <p>29) 15th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 2=-253, 12=-4</p> <p>30) 16th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 3=-253, 12=-4</p> <p>31) 17th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 4=-253, 12=-4</p> <p>32) 18th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 5=-253, 12=-4</p> <p>33) 19th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 6=-253, 12=-4</p> <p>34) 20th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 7=-253</p> <p>35) 21st Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 9=-253</p> <p>36) 22nd Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)</p> | <p>Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 10=-253, 12=-4</p> <p>37) 23rd Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 11=-253, 12=-4</p> <p>38) 24th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-257</p> <p>39) 25th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 13=-253, 12=-4</p> <p>40) 26th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 28=-253</p> <p>41) 27th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 29=-253</p> <p>42) 28th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 23=-253, 12=-4</p> <p>43) 29th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 30=-253</p> <p>44) 30th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 31=-253</p> <p>45) 31st Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 32=-253</p> <p>46) 32nd Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 33=-253</p> <p>47) 33rd Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 34=-253</p> <p>48) 34th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 35=-253</p> |
|---|---|--|

July 2, 2025

Continued on page 3

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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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	2F18	Floor	4	1	Job Reference (optional)

I74582493

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:34
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Page: 3

- 49) 35th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 36=-253
- 50) 36th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 26=-253, 12=-4
- 51) 37th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 25=-253, 12=-4
- 52) 38th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 24=-253, 12=-4
- 53) 39th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 22=-253, 12=-4
- 54) 40th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 21=-253
- 55) 41st Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 20=-253, 12=-4
- 56) 42nd Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 19=-253, 12=-4
- 57) 43rd Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 18=-253
- 58) 44th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 12=-4, 17=-253
- 59) 45th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 16=-253, 12=-4
- 60) 46th Moving Load: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 15-26=-10, 1-14=-20
Concentrated Loads (lb)
Vert: 15=-253, 12=-4



July 2, 2025

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

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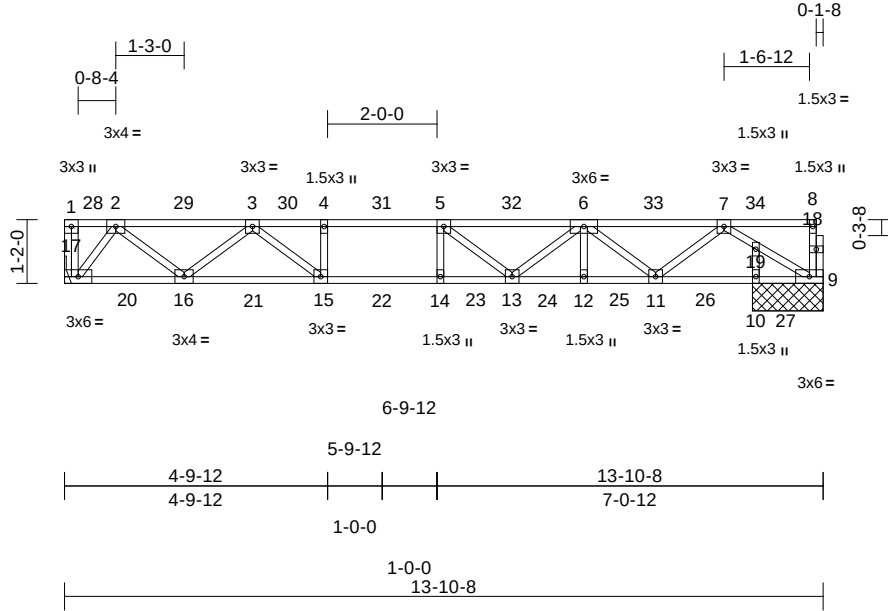
Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor	174582494
2412-1161-A	2F22	Floor	4	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:35

Page: 1

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Scale = 1:42.1

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	0.83	Vert(LL)	-0.15	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.51	Vert(CT)	-0.19	13-14	>775	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.02	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 72 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP SS(flat)
WEBS	2x4 SP No.3(flat) *Except* 9-7:2x4 SP No.2 (flat)
OTHERS	2x4 SP No.3(flat)

- 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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-8-12 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size)	9=1-3-8, 10=1-3-8, 17= Mechanical
	Max Grav	9=322 (LC 38), 10=509 (LC 1), 17=708 (LC 1)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-17=-249/84, 8-9=-264/25, 1-2=0/0, 2-3=-1126/0, 3-4=-2123/0, 4-5=-2123/0, 5-6=-2009/0, 6-7=-1168/0, 7-8=-16/1
BOT CHORD	16-17=0/554, 15-16=0/1708, 14-15=0/2123, 13-14=0/2123, 12-13=0/1796, 11-12=0/1796, 10-11=0/662, 9-10=0/662
WEBS	4-15=-257/39, 5-14=-174/149, 2-17=-900/0, 2-16=0/745, 3-16=-757/0, 3-15=-34/665, 5-13=-292/221, 6-13=-54/355, 7-19=-911/0, 9-19=-710/0, 7-11=0/659, 6-11=-801/0, 6-12=-25/269, 10-19=-369/0

NOTES

- Unbalanced floor live loads have been considered for this design.
- 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.
- Refer to girder(s) for truss to truss connections.
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.



July 2, 2025

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

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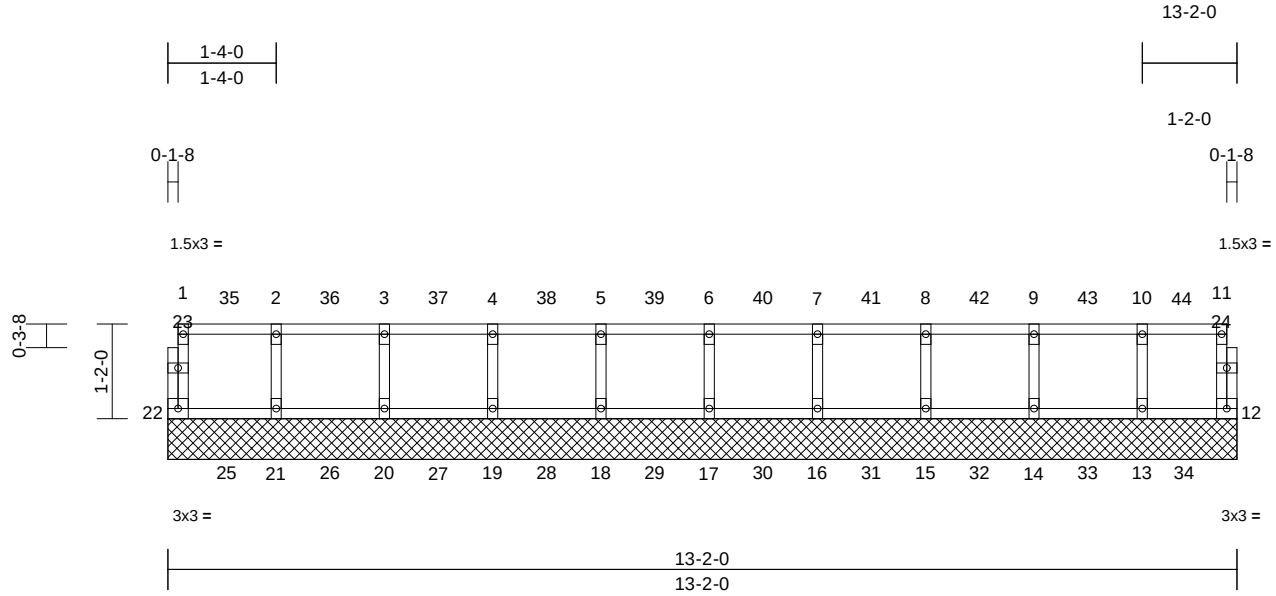
Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor	174582495
2412-1161-A	2FGE4	Floor Supported Gable	4	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:36

Page: 1

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Scale = 1:28.4

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	0.28	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.29	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	12	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 56 lb	FT = 20%F, 12%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)	12=13-2-0, 13=13-2-0, 14=13-2-0, 15=13-2-0, 16=13-2-0, 17=13-2-0, 18=13-2-0, 19=13-2-0, 20=13-2-0, 21=13-2-0, 22=13-2-0
Max Uplift	12=-21 (LC 34), 22=-13 (LC 27)
Max Grav	12=266 (LC 46), 13=289 (LC 45), 14=294 (LC 44), 15=293 (LC 43), 16=293 (LC 42), 17=293 (LC 41), 18=293 (LC 40), 19=293 (LC 39), 20=293 (LC 38), 21=293 (LC 37), 22=268 (LC 36)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-22=-259/20, 11-12=-257/28, 1-2=-23/4, 2-3=-23/4, 3-4=-23/4, 4-5=-23/4, 5-6=-23/4, 6-7=-23/4, 7-8=-23/4, 8-9=-23/4, 9-10=-23/4, 10-11=-23/4
BOT CHORD	21-22=-4/23, 20-21=-4/23, 19-20=-4/23, 18-19=-4/23, 17-18=-4/23, 16-17=-4/23, 15-16=-4/23, 14-15=-4/23, 13-14=-4/23, 12-13=-4/23
WEBS	2-21=-277/7, 3-20=-278/5, 4-19=-277/5, 5-18=-277/5, 6-17=-277/5, 7-16=-278/5, 8-15=-277/5, 9-14=-278/4, 10-13=-274/11

NOTES

- 1) All plates are 1.5x3 (I) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 22 and 21 lb uplift at joint 12.
- 6) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 7) 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



July 2, 2025

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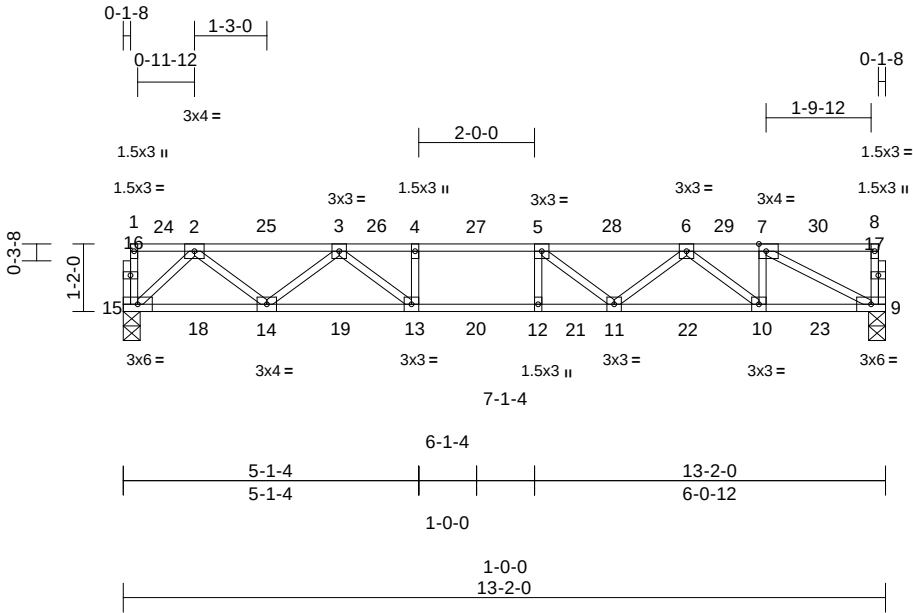
Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	2F23	Floor	20	1	Job Reference (optional)

174582496

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:35
ID:FvieE2Up9EKMNHFOILrN0zoZ?y-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:39.8

Plate Offsets (X, Y): [7:0-1-8,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	0.77	Vert(LL)	-0.13	11-12	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.48	Vert(CT)	-0.17	11-12	>901	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.03	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 67 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP SS(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) 9=0-3-8, 15=0-3-8
	Max Grav 9=704 (LC 1), 15=704 (LC 1)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-15=-255/56, 8-9=-271/0, 1-2=-15/3, 2-3=-1266/0, 3-4=-2155/0, 4-5=-2155/0, 5-6=-1971/0, 6-7=-1171/0, 7-8=-16/0
BOT CHORD	14-15=0/721, 13-14=0/1806, 12-13=0/2155, 11-12=0/2155, 10-11=0/1715, 9-10=0/1171
WEBS	4-13=-240/55, 5-12=-152/155, 2-15=-991/0, 2-14=0/709, 3-14=-702/0, 3-13=-77/613, 6-10=-695/0, 6-11=-12/375, 5-11=-409/214, 7-10=0/450, 7-9=-1314/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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



July 2,2025

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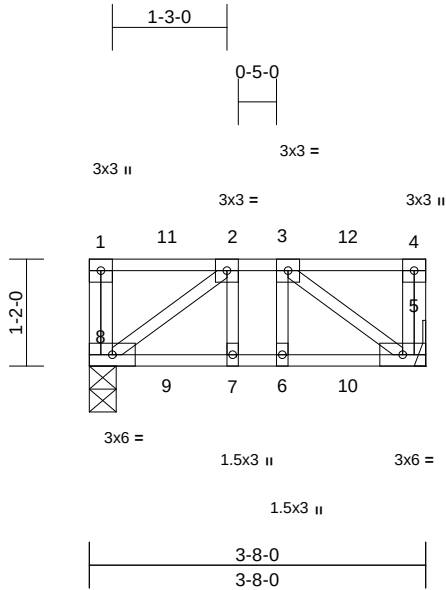
Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	2F15	Floor	4	1	Job Reference (optional)

I74582497

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:33
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Page: 1



Scale = 1:25.1

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	0.44	Vert(LL)	-0.02	5-6	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.46	Vert(CT)	-0.02	5-6	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 24 lb	FT = 20%F, 12%E

LUMBER

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

BRACING

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

REACTIONS (size) 5= Mechanical, 8=0-3-8
Max Grav 5=304 (LC 11), 8=304 (LC 7)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-8=-265/2, 4-5=-265/2, 1-2=0/0, 2-3=-217/0,
3-4=0/0
BOT CHORD 7-8=0/217, 6-7=0/217, 5-6=0/217
WEBS 3-5=-268/0, 2-8=-268/0, 2-7=-82/198,
3-6=-82/198

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Refer to girder(s) for truss to truss connections.
- 3) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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.

LOAD CASE(S) Standard



July 2, 2025

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

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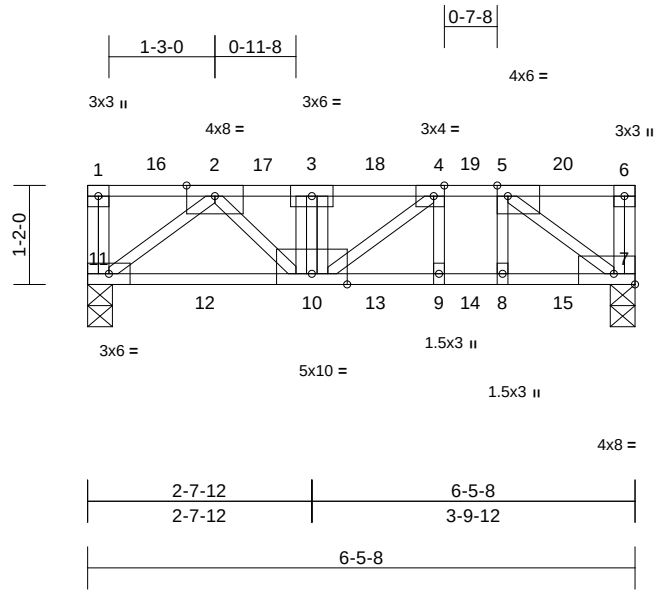
Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	2FGR3	Floor Girder	3	1	Job Reference (optional)

I74582498

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:37
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Page: 1



Scale = 1:27.2

Plate Offsets (X, Y): [4:0-1-8,Edge], [5:0-1-8,Edge], [7: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	0.61	Vert(LL)	-0.08	9-10	>966	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.74	Vert(CT)	-0.10	9-10	>741	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.72	Horz(CT)	0.01	7	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 40 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD 2x4 SP SS(flat)
BOT CHORD 2x4 SP SS(flat)
WEBS 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=0-3-8, 11=0-3-8
Max Grav 7=1706 (LC 13), 11=1132 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-11=-279/0, 6-7=-465/20, 1-2=0/0, 2-3=-2506/0, 3-4=-2497/0, 4-5=-2103/0, 5-6=0/0

BOT CHORD 10-11=0/1383, 9-10=0/2103, 8-9=0/2103, 7-8=0/2103

WEBS 3-10=-1305/0, 2-11=-1735/0, 2-10=0/1613, 4-10=-187/673, 5-7=-2598/0, 4-9=-530/0, 5-8=0/571

NOTES

- Unbalanced floor live loads have been considered for this design.
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 7-11=-10, 1-3=-100, 3-6=-546
Concentrated Loads (lb)
Vert: 3=-500



July 2, 2025

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Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	2F12	Floor	1	1	Job Reference (optional)

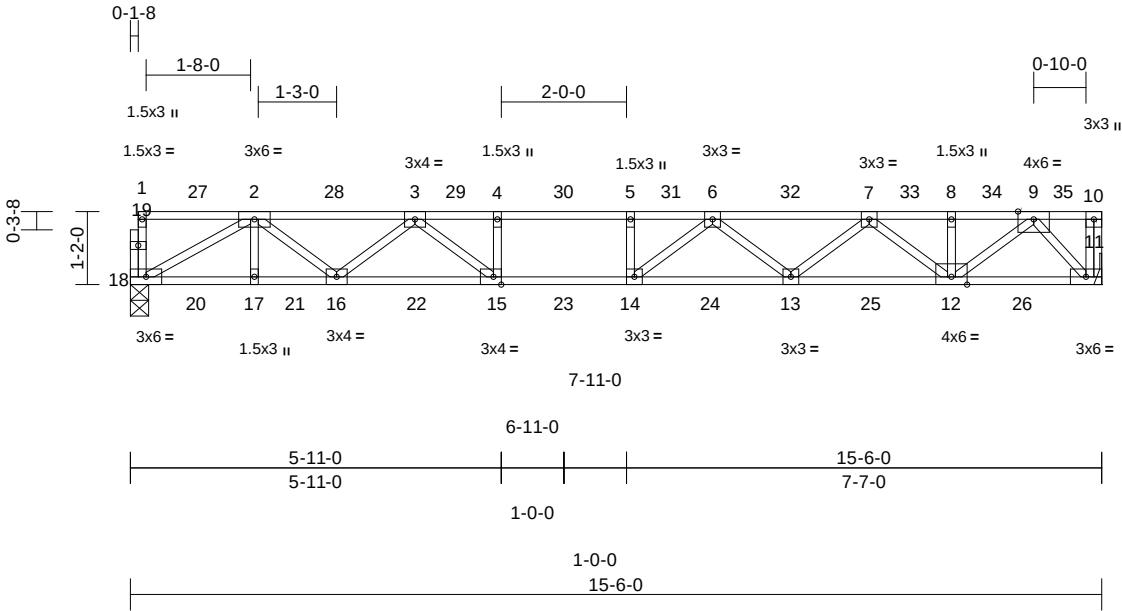
I74582499

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.20 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:32

Page: 1

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Scale = 1:36.8

Plate Offsets (X, Y): [15:0-1-8,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	0.69	Vert(LL)	-0.21	13-14	>858	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.55	Vert(CT)	-0.29	13-14	>628	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.04	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 80 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP SS(flat)
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 10-0-0 oc bracing.

REACTIONS (size) 11= Mechanical, 18=0-3-8
Max Grav 11=839 (LC 1), 18=833 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-18=-266/15, 10-11=-259/23, 1-2=-16/1, 2-3=-1961/0, 3-4=-2989/0, 4-5=-2989/0, 5-6=-2989/0, 6-7=-2631/0, 7-8=-1557/0, 8-9=-1557/0, 9-10=0/0
BOT CHORD 17-18=0/1358, 16-17=0/1358, 15-16=0/2554, 14-15=0/2989, 13-14=0/2959, 12-13=0/2239, 11-12=0/732
WEBS 4-15=-317/55, 5-14=-189/132, 2-16=0/770, 3-16=-772/0, 3-15=-73/757, 2-17=-65/262, 2-18=-1554/0, 9-11=-1079/0, 9-12=0/1054, 8-12=-267/51, 7-12=-870/0, 7-13=0/511, 6-13=-427/46, 6-14=-285/400

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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.



July 2,2025

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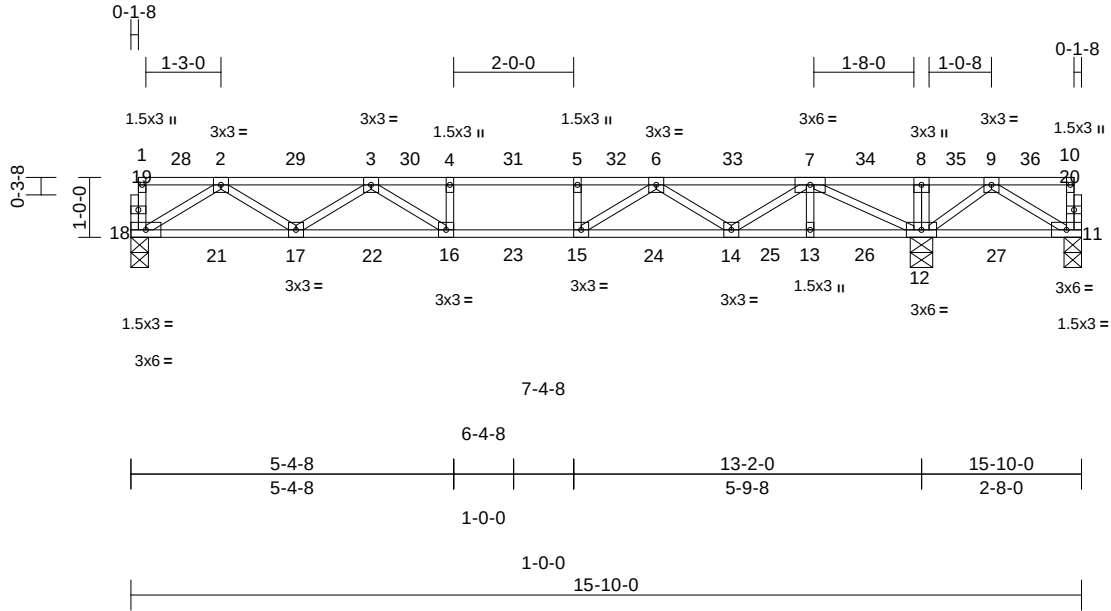
Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor	174582434
2412-1161-A	1F6	Floor	4	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:23

Page: 1

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Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.58	Vert(LL)	-0.16	16-17	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.94	Vert(CT)	-0.19	16-17	>830	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.02	12	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 78 lb	FT = 20%F, 12%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 2-2-0 oc bracing.

REACTIONS (size) 11=0-3-8, 12=0-4-8, 18=0-3-8
Max Uplift 11=-337 (LC 35)
Max Grav 11=180 (LC 46), 12=999 (LC 1), 18=403 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-18=-259/36, 10-11=-261/8, 1-2=-18/3, 2-3=-912/0, 3-4=-1240/0, 4-5=-1240/0, 5-6=-1240/0, 6-7=-471/0, 7-8=0/1030, 8-9=0/1029, 9-10=-19/1
BOT CHORD 17-18=0/588, 16-17=0/1191, 15-16=0/1240, 14-15=0/922, 13-14=-372/229, 12-13=-372/229, 11-12=-544/36
WEBS 4-16=-150/114, 5-15=-231/51, 8-12=-274/26, 9-11=-42/646, 9-12=-656/0, 2-18=-695/0, 2-17=0/487, 3-17=-365/33, 3-16=-241/255, 7-14=0/690, 6-14=-552/0, 6-15=-69/483, 7-13=-76/249, 7-12=-1114/0

NOTES

- Unbalanced floor live loads have been considered for this design.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11. This connection is for uplift only and does not consider lateral forces.
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.

- 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



July 2, 2025

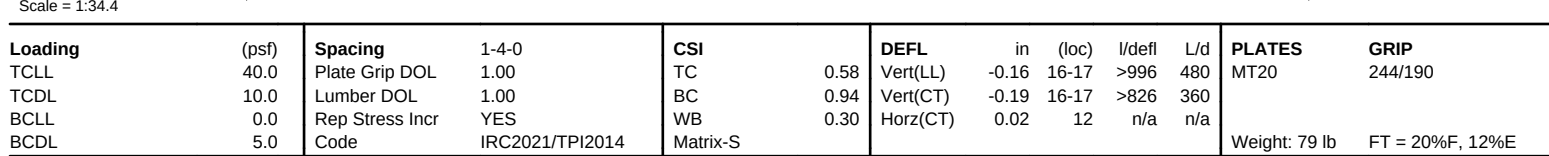
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:23 Page: 1
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- 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.
- 5) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

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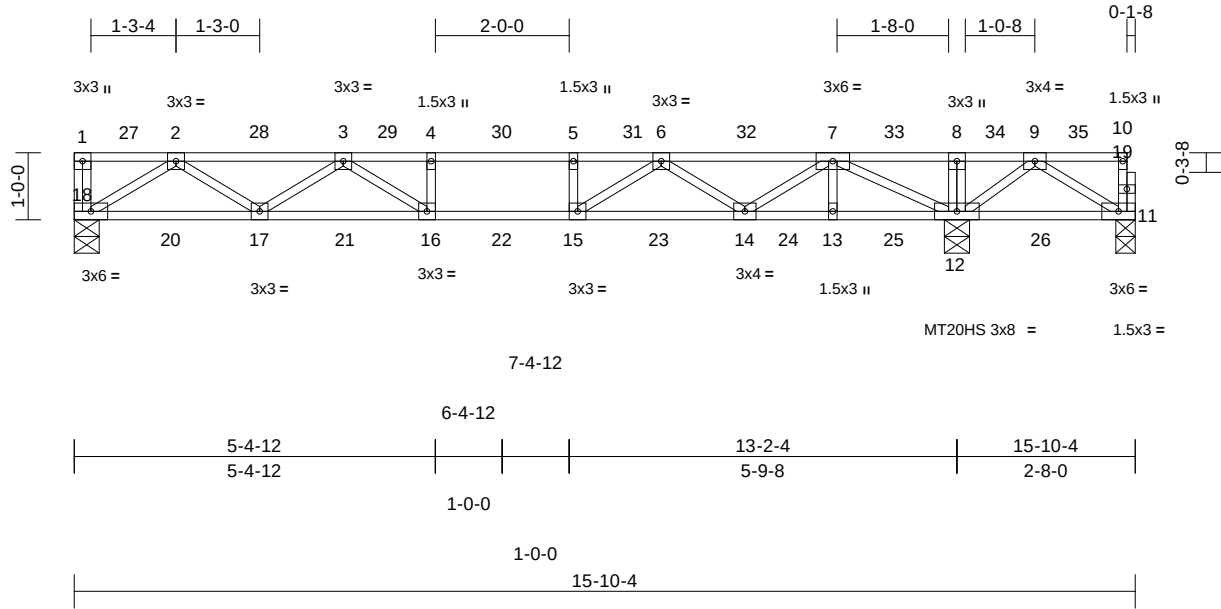
Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor	
2412-1161-A	1F7A	Floor	12	1	Job Reference (optional)	I74582436

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:23

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Scale = 1:34.4

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.70	Vert(LL)	-0.13	16-17	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.52	Vert(CT)	-0.19	16-17	>821	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	NO	WB	0.38	Horz(CT)	0.02	12	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 79 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP SS(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) 11=0-3-8, 12=0-4-8, 18=0-4-8
Max Uplift 11=431 (LC 33)
Max Grav 11=82 (LC 44), 12=1199 (LC 1), 18=484 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-18=-259/32, 10-11=-261/8, 1-2=0/0, 2-3=-1149/0, 3-4=-1684/0, 4-5=-1684/0, 5-6=-1684/0, 6-7=-590/0, 7-8=0/1296, 8-9=0/1295, 9-10=-19/1
BOT CHORD 17-18=0/718, 16-17=0/1528, 15-16=0/1684, 14-15=0/1201, 13-14=-421/171, 12-13=-421/171, 11-12=-689/0
WEBS 4-16=-231/27, 5-15=-332/0, 8-12=-278/22, 9-11=0/817, 9-12=-801/0, 7-14=0/885, 6-14=-747/0, 6-15=0/684, 7-13=-80/246, 7-12=-1353/0, 2-18=-847/0, 2-17=0/615, 3-17=-483/0, 3-16=-116/381

NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11. This connection is for uplift only and does not consider lateral forces.
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.

- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
 - 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
- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 11-18=-7, 1-29=-67, 29-31=-117, 10-31=-67



July 2, 2025

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Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	1F8A	Floor	24	1	Job Reference (optional)

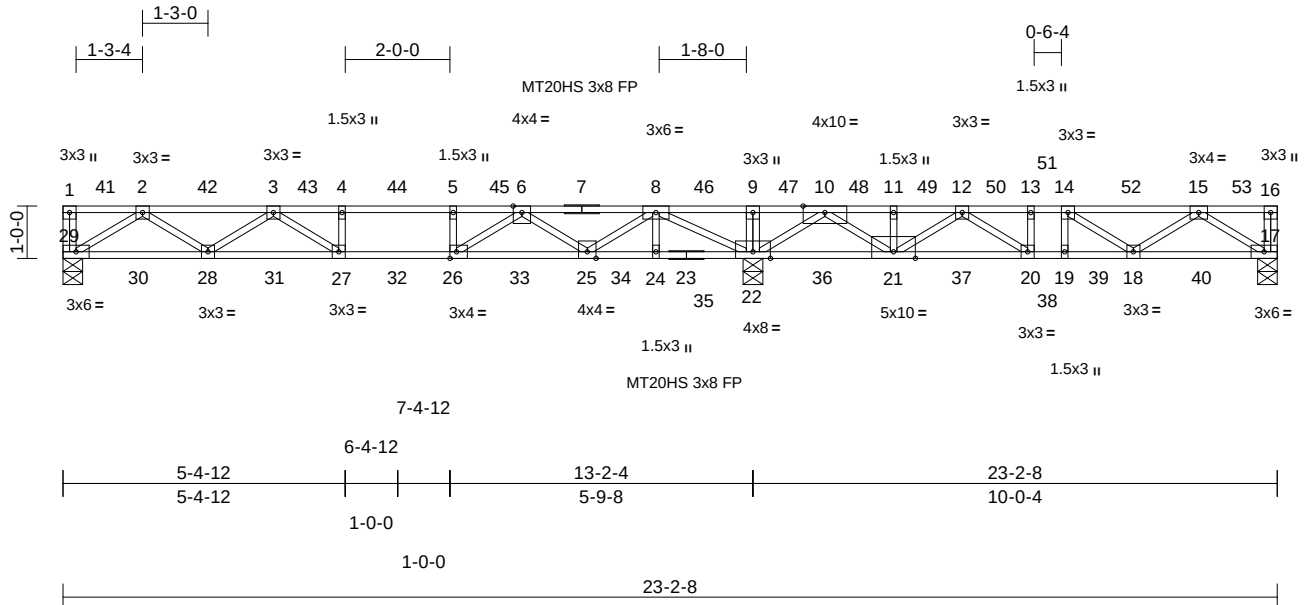
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Structural, LLC, Thurmont, MD - 21788,

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Scale = 1:44

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

Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.96	Vert(LL)	-0.13	27-28	>999	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.54	Vert(CT)	-0.21	27-28	>744	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.59	Horz(CT)	0.02	17	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 115 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD 2x4 SP No.2(flat) *Except* 7-16:2x4 SP SS (flat)
BOT CHORD 2x4 SP SS(flat)
WEBS 2x4 SP No.3(flat) *Except* 21-10:2x4 SP No.2(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, Except:
6-0-0 oc bracing: 24-25,22-24,21-22.

REACTIONS (size) 17=0-4-8, 22=0-4-8, 29=0-4-8
Max Grav 17=1445 (LC 66), 22=2101 (LC 1), 29=480 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-29=-260/31, 16-17=-811/0, 1-2=0/0, 2-3=-1145/0, 3-4=-1606/0, 4-5=-1606/0, 5-6=-1606/0, 6-8=-170/458, 8-9=0/2233, 9-10=0/2231, 10-11=-1952/0, 11-12=-1952/0, 12-13=-1926/0, 13-14=-1926/0, 14-15=-1644/0, 15-16=0/0
BOT CHORD 28-29=0/713, 27-28=0/1506, 26-27=0/1606, 25-26=0/930, 24-25=-976/0, 22-24=-976/0, 21-22=-441/358, 20-21=0/2038, 19-20=0/1926, 18-19=0/1926, 17-18=0/1332, 4-27=-224/38, 5-26=-431/0, 9-22=-292/5, 8-25=0/1043, 6-25=-962/0, 6-26=0/945, 10-22=-2336/0, 15-17=-1579/0, 10-21=0/2097, 15-18=0/471, 14-18=-462/19, 14-19=-40/274, 11-21=-1205/0, 12-21=-231/190, 12-20=-392/72, 13-20=-118/209, 2-29=-842/0, 2-28=0/603, 3-28=-445/0, 3-27=-204/304, 8-24=-76/250, 8-22=-1592/0

NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 17-29=-7, 1-43=-67, 43-45=-142, 16-45=-67
Concentrated Loads (lb)
Vert: 11=-978, 53=-1009



July 2,2025

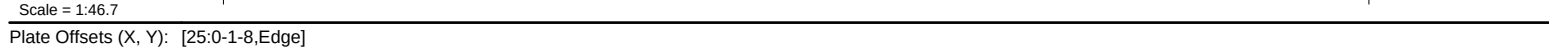
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LUMBER		2) All plates are MT20 plates unless otherwise indicated.
TOP CHORD	2x4 SP No.2(flat) *Except* 7-15:2x4 SP SS (flat)	3) All plates are 3x3 (=) MT20 unless otherwise indicated.
BOT CHORD	2x4 SP SS(flat) *Except* 22-16:2x4 SP No.2 (flat)	4) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
WEBS	2x4 SP No.3(flat)	5) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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.
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.	7) CAUTION, Do not erect truss backwards.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.	
REACTIONS	(size) 16=0-4-8, 21=0-4-8, 28=0-4-8	
	Max Grav 16=1108 (LC 64), 21=1252 (LC 1), 28=515 (LC 3)	
FORCES		LOAD CASE(S) Standard
TOP CHORD	(lb) - Maximum Compression/Maximum Tension	1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
	1-28=-259/32, 15-16=-727/0, 1-2=0/0, 2-3=-1243/0, 3-4=-1875/0, 4-5=-1875/0, 5-6=-1875/0, 6-8=-701/0, 8-9=0/1518, 9-10=0/1516, 10-11=-249/619, 11-12=-881/11, 12-13=-881/11, 13-14=-968/0, 14-15=0/0	Uniform Loads (lb/ft) Vert: 16-28=-7, 1-42=-67, 42-44=-133, 15-44=-67
BOT CHORD	27-28=0/768, 26-27=0/1667, 25-26=0/1875, 24-25=0/1352, 23-24=-352/97, 21-23=-352/97, 20-21=-920/0, 19-20=-323/626, 18-19=-11/881, 17-18=-11/881, 16-17=0/945	Concentrated Loads (lb) Vert: 51=-867
	4-26=-259/4, 5-25=-365/0, 9-21=-276/32, 8-24=0/937, 6-24=-830/0, 6-25=0/770, 8-23=-77/248, 8-21=-1467/0, 10-21=-921/0, 14-16=-1120/0, 10-20=0/639, 14-17=-276/121, 11-20=-615/0, 13-17=-25/454, 11-19=0/527, 12-19=-254/63, 13-18=-159/146, 2-28=-906/0, 2-27=0/652, 3-27=-518/0, 3-26=-82/429	
WEBS		

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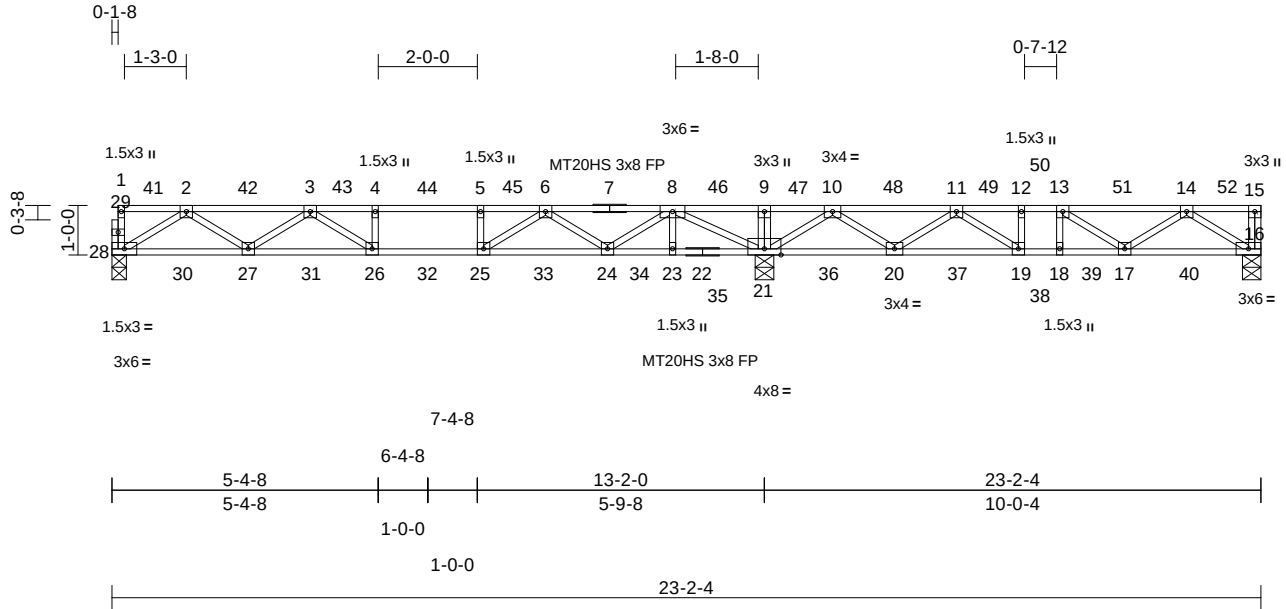
Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	1F9	Floor	4	1	174582439
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

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Scale = 1:46.5

Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.84	Vert(LL)	-0.13	26-27	>999	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.48	Vert(CT)	-0.17	26-27	>944	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.39	Horz(CT)	0.02	16	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S								
Weight: 114 lb											FT = 20%F, 12%E	

LUMBER

TOP CHORD	2x4 SP No.2(flat) *Except* 7-15:2x4 SP SS (flat)
BOT CHORD	2x4 SP SS(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) 16=0-4-8, 21=0-4-8, 28=0-3-8
Max Grav	16=819 (LC 66), 21=3432 (LC 1), 28=387 (LC 3)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-28=-259/36, 15-16=-491/0, 1-2=-18/3, 2-3=-869/0, 3-4=-1128/0, 4-5=-1128/0, 5-6=-1128/0, 6-8=-293/344, 8-9=0/1491, 9-10=0/1456, 10-11=-1055/0, 11-12=-1359/0, 12-13=-1359/0, 13-14=-1145/0, 14-15=0/0
BOT CHORD	27-28=0/564, 26-27=0/1119, 25-26=0/1128, 24-25=-160/768, 23-24=-575/0, 21-23=-575/0, 20-21=-257/534, 19-20=0/1537, 18-19=0/1359, 17-18=0/1359, 16-17=0/860
WEBS	4-26=-133/129, 5-25=-249/25, 9-21=-2167/0, 2-28=-667/0, 2-27=0/446, 3-27=-309/86, 3-26=-315/192, 8-24=0/711, 6-24=-613/0, 6-25=0/566, 10-21=-1661/0, 14-16=-1019/0, 10-20=0/764, 14-17=0/441, 11-20=-741/0, 13-17=-385/97, 11-19=-477/14, 12-19=-18/291, 13-18=-114/187, 8-23=-78/248, 8-21=-1217/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) All plates are 3x3 (=) MT20 unless otherwise indicated.

- 4) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - 5) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
 - 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.
 - 7) CAUTION, Do not erect truss backwards.
- LOAD CASE(S)** Standard
- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 16-28=-7, 1-15=-67
Concentrated Loads (lb)
Vert: 9=-2000, 48=-457, 52=-425



July 2, 2025

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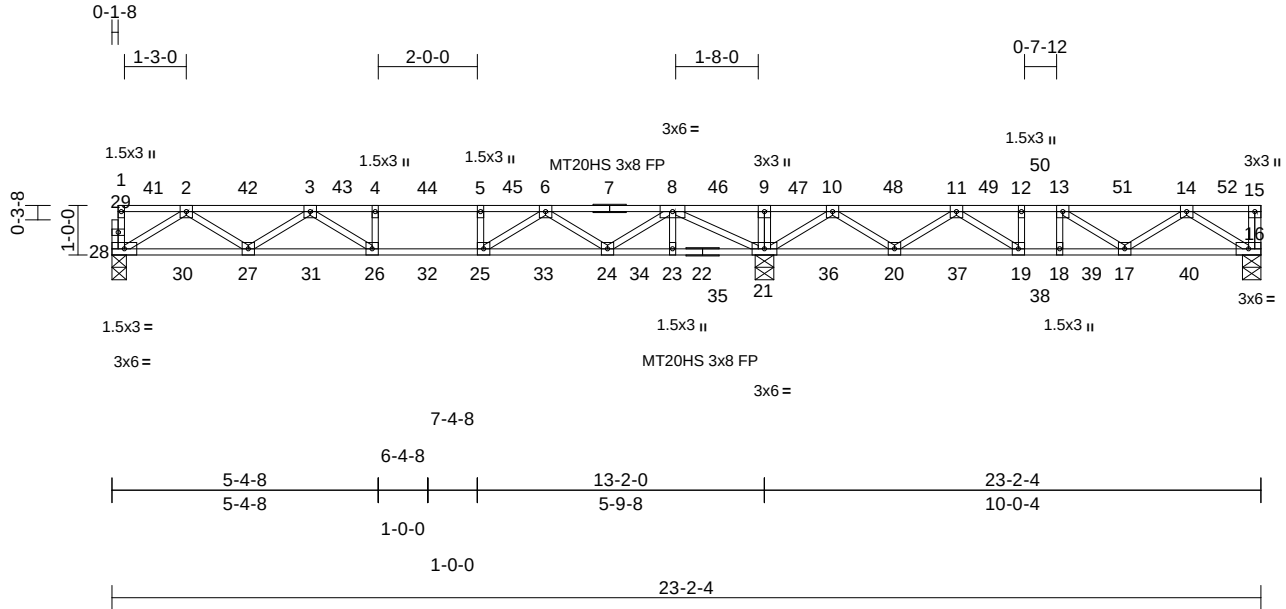
Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	1F10	Floor	12	1	174582440
Job Reference (optional)					

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Scale = 1:46.5

Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.73	Vert(LL)	-0.13	26-27	>999	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.83	Vert(CT)	-0.16	26-27	>959	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.28	Horz(CT)	0.01	16	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S								
Weight: 114 lb											FT = 20%F, 12%E	

LUMBER

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP SS(flat) *Except* 22-16:2x4 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) 16=0-4-8, 21=0-4-8, 28=0-3-8
	Max Grav 16=334 (LC 66), 21=1024 (LC 1), 28=415 (LC 3)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-28=-259/37, 15-16=-262/37, 1-2=-18/3, 2-3=-946/0, 3-4=-1322/0, 4-5=-1322/0, 5-6=-1322/0, 6-8=-604/100, 8-9=0/1095, 9-10=0/1093, 10-11=-417/420, 11-12=-779/94, 12-13=-779/94, 13-14=-669/8, 14-15=0/0
BOT CHORD	27-28=0/606, 26-27=0/1242, 25-26=0/1322, 24-25=0/1038, 23-24=-254/195, 21-23=-254/195, 20-21=-606/116, 19-20=-245/680, 18-19=-94/779, 17-18=-94/779, 16-17=0/460
WEBS	4-26=-159/105, 5-25=-221/57, 9-21=-270/39, 2-28=-717/0, 2-27=0/481, 3-27=-362/37, 3-26=-241/272, 8-24=0/672, 6-24=-566/0, 6-25=-90/492, 10-21=-783/0, 14-16=-546/0, 10-20=0/505, 14-17=-43/348, 11-20=-471/0, 13-17=-267/213, 11-19=-146/331, 12-19=-178/131, 13-18=-145/157, 8-23=-78/248, 8-21=-1129/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) All plates are 3x3 (=) MT20 unless otherwise indicated.

- 4) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - 5) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
 - 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.
 - 7) CAUTION, Do not erect truss backwards.
- LOAD CASE(S)** Standard
- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 16-28=-7, 1-15=-67
Concentrated Loads (lb)
Vert: 48=-9, 52=-8



July 2, 2025

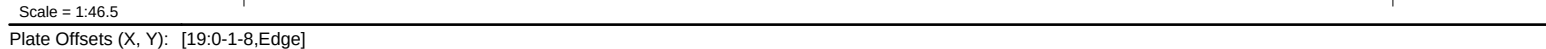
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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

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Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:25 Page: 1
ID:nX5DrIw7daXLJzWXdiXSxzGw6i-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWRcD7J4zJC?f



LUMBER		3) All plates are 3x3 (=) MT20 unless otherwise indicated.
TOP CHORD	2x4 SP No.2(flat)	4) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
BOT CHORD	2x4 SP No.2(flat) *Except* 22-28:2x4 SP SS (flat)	5) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
WEBS	2x4 SP No.3(flat)	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.
OTHERS	2x4 SP No.3(flat)	7) CAUTION, Do not erect truss backwards.
BRACING		LOAD CASE(S) Standard
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.	1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.	Uniform Loads (lb/ft) Vert: 16-28=-7, 1-15=-67
REACTIONS	(size) 16=0-4-8, 21=0-4-8, 28=0-3-8 Max Grav 16=504 (LC 66), 21=1169 (LC 1), 28=404 (LC 3)	Concentrated Loads (lb) Vert: 13=-322
FORCES	(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-28=-259/36, 15-16=-252/46, 1-2=-18/3, 2-3=-916/0, 3-4=-1246/0, 4-5=-1246/0, 5-6=-1246/0, 6-8=-482/222, 8-9=0/1249, 9-10=0/1247, 10-11=-659/179, 11-12=-1506/0, 12-13=-1506/0, 13-14=-1192/0, 14-15=0/0	
BOT CHORD	27-28=0/590, 26-27=0/1194, 25-26=0/1246, 24-25=-53/934, 23-24=-390/59, 21-23=-390/59, 20-21=-554/169, 19-20=0/1131, 18-19=0/1506, 17-18=0/1506, 16-17=0/744	
WEBS	4-26=-148/116, 5-25=-232/46, 9-21=-272/37, 2-28=-697/0, 2-27=0/465, 3-27=-340/59, 3-26=-275/239, 8-24=0/689, 6-24=-588/0, 6-25=-57/526, 10-21=-1027/0, 14-16=-882/0, 10-20=0/736, 14-17=0/640, 11-20=-726/0, 13-17=-512/0, 11-19=0/662, 12-19=-280/30, 13-18=-247/55, 8-23=-79/247, 8-21=-1148/0	

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

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	1F10B	Floor	5	1	Job Reference (optional)

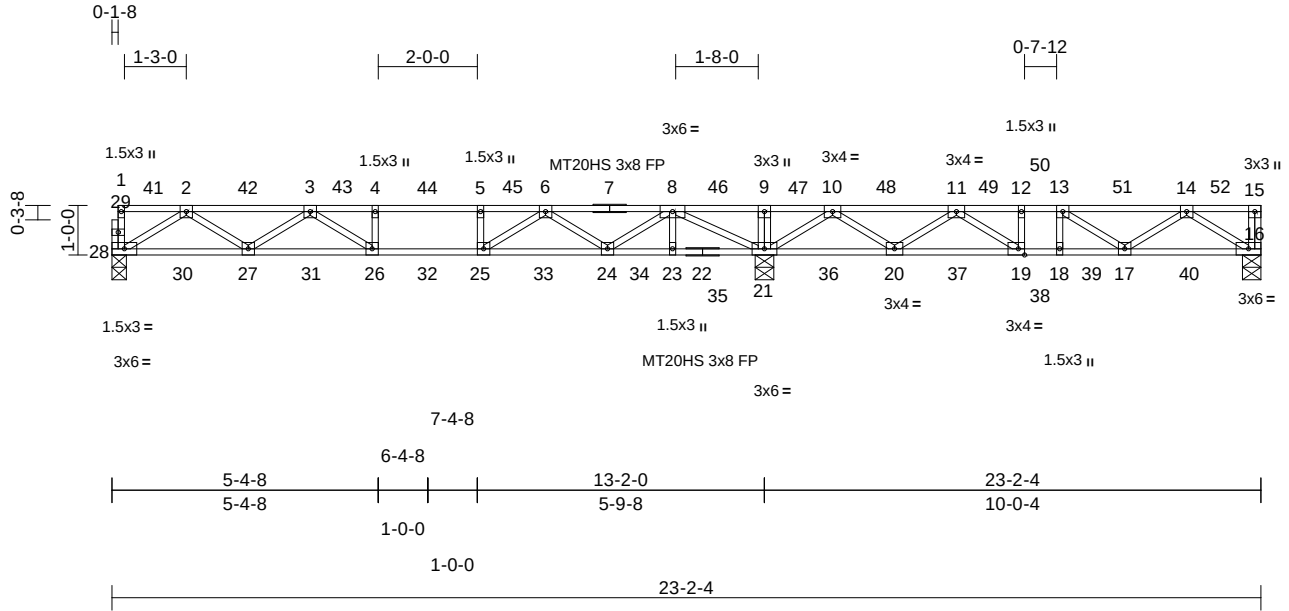
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Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:25

Page: 1

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Scale = 1:46.5

Plate Offsets (X, Y): [19:0-1-8,Edge]

Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.85	Vert(LL)	-0.13	26-27	>999	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.89	Vert(CT)	-0.16	26-27	>950	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.35	Horz(CT)	0.02	16	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S								
Weight: 114 lb											FT = 20%F, 12%E	

LUMBER

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat) *Except* 22-28:2x4 SP SS (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) 16=0-4-8, 21=0-4-8, 28=0-3-8
Max Grav	16=515 (LC 66), 21=1284 (LC 1), 28=403 (LC 3)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-28=-259/36, 15-16=-252/46, 1-2=-18/3, 2-3=-911/0, 3-4=-1235/0, 4-5=-1235/0, 5-6=-1235/0, 6-8=-464/240, 8-9=0/1274, 9-10=0/1272, 10-11=-699/139, 11-12=-1554/0, 12-13=-1554/0, 13-14=-1225/0, 14-15=0/0
BOT CHORD	27-28=0/588, 26-27=0/1187, 25-26=0/1235, 24-25=-68/918, 23-24=-410/39, 21-23=-410/39, 20-21=-529/193, 19-20=0/1187, 18-19=0/1554, 17-18=0/1554, 16-17=0/762
WEBS	4-26=-147/117, 5-25=-234/44, 9-21=-266/47, 2-28=-694/0, 2-27=0/462, 3-27=-336/62, 3-26=-280/234, 8-24=0/691, 6-24=-591/0, 6-25=-52/531, 10-21=-1085/0, 14-16=-903/0, 10-20=0/755, 14-17=0/659, 11-20=-746/0, 13-17=-530/0, 11-19=0/653, 12-19=-273/36, 13-18=-249/53, 8-23=-79/247, 8-21=-1153/0

NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.

- All plates are 3x3 (=) MT20 unless otherwise indicated.
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 16-28=-7, 1-15=-67
Concentrated Loads (lb)
Vert: 21=-87, 13=-333, 48=-26



July 2,2025

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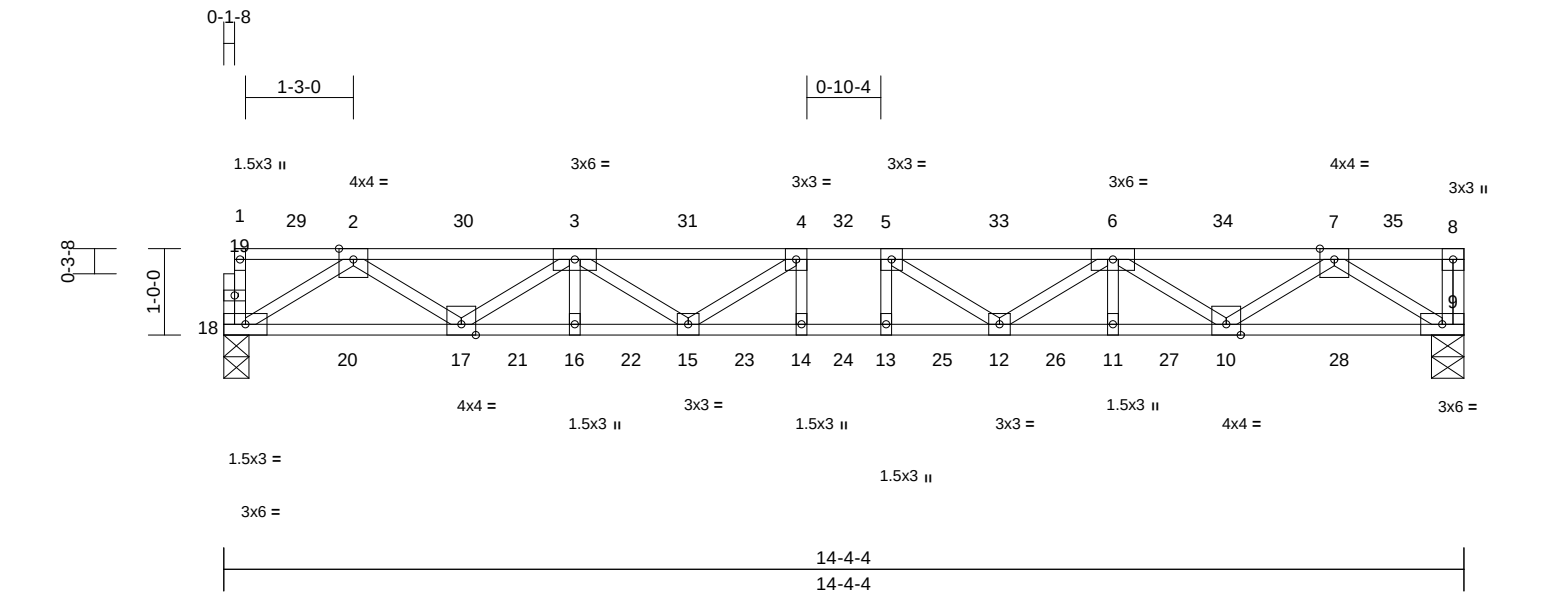
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	1F1	Floor	30	1	174582447
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:20
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Page: 1



Scale = 1:26.7

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	0.80	Vert(LL)	-0.19 13-14	>886	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.88	Vert(CT)	-0.26 13-14	>645	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.05 9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S						Weight: 73 lb	FT = 20%F, 12%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 5-8-12 oc purlins, except end verticals.
- BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
- REACTIONS** (size) 9=0-4-8, 18=0-3-8
Max Grav 9=776 (LC 1), 18=769 (LC 1)
- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-18=-262/39, 8-9=-262/35, 1-2=-19/3, 2-3=-1853/0, 3-4=-2864/0, 4-5=-3131/0, 5-6=-2864/0, 6-7=-1853/0, 7-8=0/0
- BOT CHORD 17-18=0/1131, 16-17=0/2570, 15-16=0/2570, 14-15=0/3131, 13-14=0/3131, 12-13=0/3131, 11-12=0/2570, 10-11=0/2570, 9-10=0/1132
- WEBS 2-18=-1337/0, 7-9=-1341/0, 2-17=0/881, 7-10=0/881, 3-17=-862/0, 6-10=-861/0, 4-14=-157/176, 5-13=-157/176, 3-16=-98/246, 3-15=-45/409, 4-15=-474/163, 6-11=-98/246, 6-12=-45/409, 5-12=-474/163

- NOTES**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
 - 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



July 2,2025

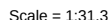
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Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:27 Page: 1
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LUMBER		
TOP CHORD	2x4 SP No.2(flat)	3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
BOT CHORD	2x4 SP No.2(flat)	4) Gable studs spaced at 1-4-0 oc.
WEBS	2x4 SP No.3(flat)	5) N/A
OTHERS	2x4 SP No.3(flat)	

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)	
		13=14-1-8, 14=14-1-8, 15=14-1-8, 16=14-1-8, 17=14-1-8, 18=14-1-8, 19=14-1-8, 20=14-1-8, 21=14-1-8, 22=14-1-8, 23=14-1-8, 24=14-1-8
Max Uplift		13=53 (LC 37), 14=17 (LC 28), 24=15 (LC 29)
Max Grav		13=260 (LC 50), 14=284 (LC 49), 15=295 (LC 48), 16=293 (LC 47), 17=293 (LC 46), 18=293 (LC 45), 19=293 (LC 44), 20=293 (LC 43), 21=293 (LC 42), 22=293 (LC 41), 23=293 (LC 40), 24=268 (LC 39)

ORCS	(1) Maximum Compression	Maximum Tension
TOP CHORD	1-24=-259/21, 12-13=-248/61, 1-2=-30/7, 2-3=-30/7, 3-4=-30/7, 4-5=-30/7, 5-6=-30/7, 6-7=-30/7, 7-8=-30/7, 8-9=-30/7, 9-10=-30/7, 10-11=-30/7, 11-12=-30/7	
BOT CHORD	23-24=-7/30, 22-23=-7/30, 21-22=-7/30, 20-21=-7/30, 19-20=-7/30, 18-19=-7/30, 17-18=-7/30, 16-17=-7/30, 15-16=-7/30, 14-15=-7/30, 13-14=-7/30	
WEBS	2-23=-277/7, 3-22=-278/5, 4-21=-278/5, 5-20=-278/5, 6-19=-278/5, 7-18=-278/5, 8-17=-278/5, 9-16=-278/5, 10-15=-279/4, 11-14=-268/23	

NOTES

- 1) All plates are 1.5x3 (||) MT20 unless otherwise indicated.
- 2) Gable requires continuous bottom chord bearing.

July 2, 2025

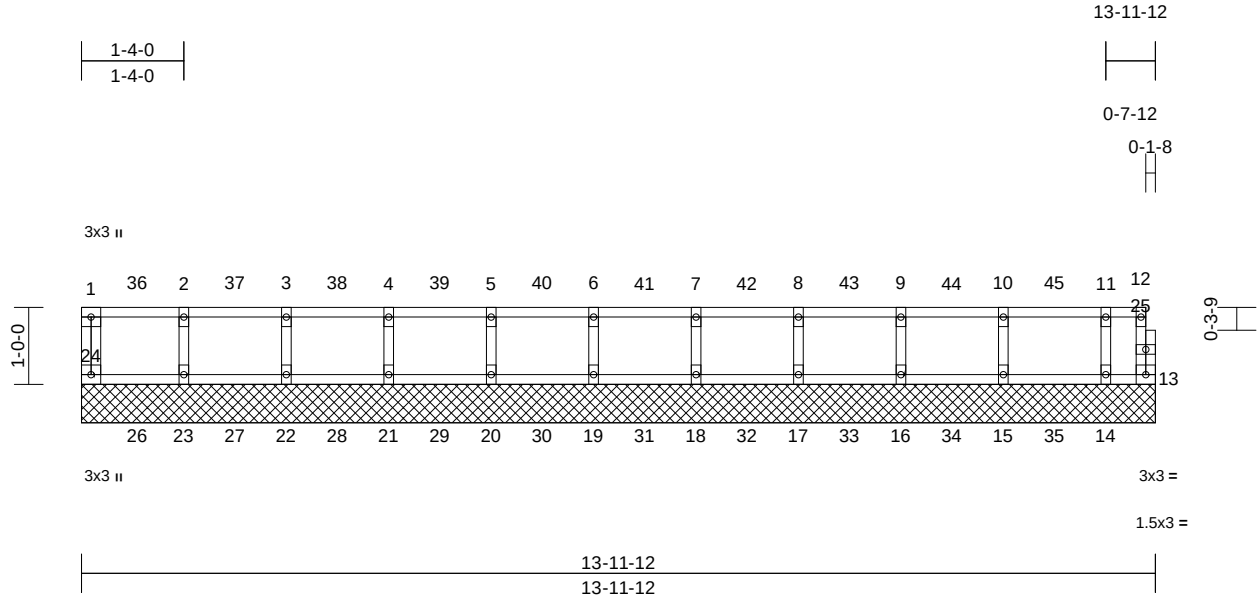


Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor	174582449
2412-1161-A	1FGE5	Floor Supported Gable	4	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:28
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Page: 1



Scale = 1:30

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	0.28	Vert(LL)	n/a	-	n/a	999	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.29	Vert(TL)	n/a	-	n/a	999	
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	13	n/a	n/a	
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							
										Weight: 57 lb	FT = 20%F, 12%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)	13=13-11-12, 14=13-11-12, 15=13-11-12, 16=13-11-12, 17=13-11-12, 18=13-11-12, 19=13-11-12, 20=13-11-12, 21=13-11-12, 22=13-11-12, 23=13-11-12, 24=13-11-12
Max Uplift	13=-77 (LC 35), 14=-31 (LC 4), 24=-14 (LC 27)
Max Grav	13=257 (LC 48), 14=282 (LC 36), 15=295 (LC 46), 16=293 (LC 45), 17=293 (LC 44), 18=293 (LC 43), 19=293 (LC 42), 20=293 (LC 41), 21=293 (LC 40), 22=293 (LC 39), 23=293 (LC 38), 24=269 (LC 37)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-24=-263/20, 12-13=-242/85, 1-2=-31/7, 2-3=-31/7, 3-4=-31/7, 4-5=-31/7, 5-6=-31/7, 6-7=-31/7, 7-8=-31/7, 8-9=-31/7, 9-10=-31/7, 10-11=-31/7, 11-12=-31/7
BOT CHORD	23-24=-7/31, 22-23=-7/31, 21-22=-7/31, 20-21=-7/31, 19-20=-7/31, 18-19=-7/31, 17-18=-7/31, 16-17=-7/31, 15-16=-7/31, 14-15=-7/31, 13-14=-7/31
WEBS	2-23=-277/7, 3-22=-278/5, 4-21=-278/5, 5-20=-278/5, 6-19=-278/5, 7-18=-278/5, 8-17=-278/5, 9-16=-278/5, 10-15=-279/5, 11-14=-264/30

NOTES

- All plates are 1.5x3 (II) 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.
- N/A
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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



July 2, 2025

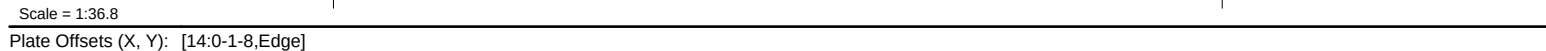
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:26 Page: 1
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LUMBER	
TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP SS(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)
BRACING	
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) 9=0-3-8, 16=0-4-8	
	Max Grav 9=760 (LC 1), 16=767 (LC 1)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-16=-260/32, 8-9=-263/35, 1-2=0/0, 2-3=-1803/0, 3-4=-2969/0, 4-5=-2969/0, 5-6=-2827/0, 6-7=-1861/0, 7-8=-19/2
BOT CHORD	15-16=0/1119, 14-15=0/2487, 13-14=0/2969, 12-13=0/2969, 11-12=0/2557, 10-11=0/2557, 9-10=0/1157
WEBS	4-14=-265/50, 5-13=-188/148, 2-16=-1326/0, 2-15=0/835, 3-15=-836/0, 3-14=-72/771, 7-9=-1351/0, 7-10=0/859, 6-10=-836/0, 6-11=-105/236, 6-12=-61/393, 5-12=-439/271

- 1) Unbalanced floor live loads have been considered for this design.
- 2) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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.

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	1F12	Floor	24	1	Job Reference (optional)

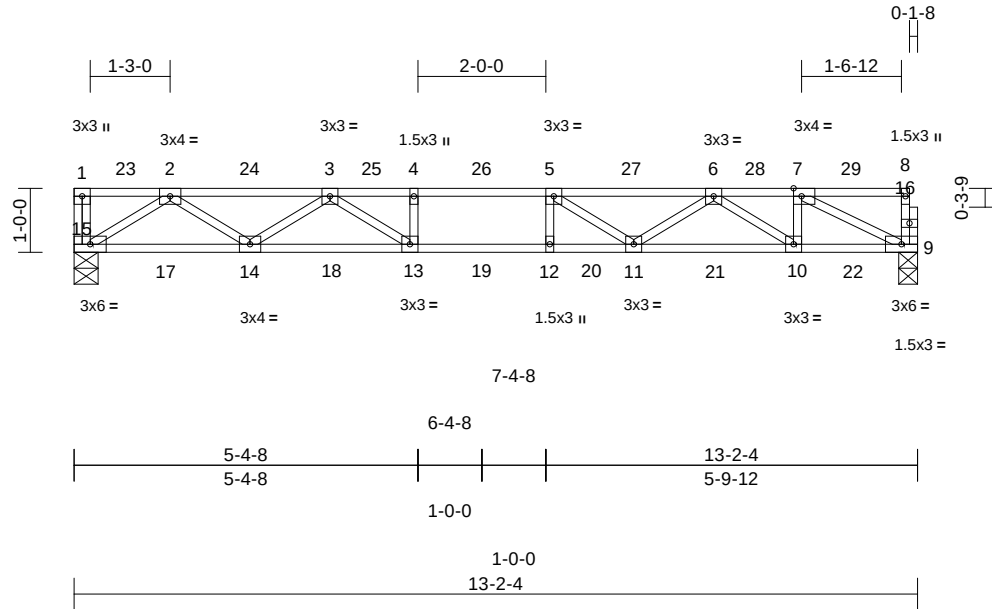
I74582451

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.20 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:26

Page: 1

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Scale = 1:36

Plate Offsets (X, Y): [7:0-1-8,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	0.78	Vert(LL)	-0.14	11-12	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.47	Vert(CT)	-0.19	11-12	>818	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.03	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 64 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
 BOT CHORD 2x4 SP SS(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) 9=0-3-8, 15=0-4-8

Max Grav 9=705 (LC 1), 15=712 (LC 1)

FORCES (lb) - Maximum Compression/Maximum
 Tension

TOP CHORD 1-15=-261/31, 8-9=-269/0, 1-2=0/0,
 2-3=-1649/0, 3-4=-2581/0, 4-5=-2581/0,
 5-6=-2285/0, 6-7=-1242/0, 7-8=-19/0

BOT CHORD 14-15=0/1035, 13-14=0/2240, 12-13=0/2581,
 11-12=0/2581, 10-11=0/1935, 9-10=0/1242

WEBS 4-13=-221/67, 5-12=-130/170, 2-15=-1227/0,
 2-14=0/749, 3-14=-721/0, 3-13=-130/621,
 6-11=0/457, 5-11=-520/197, 6-10=-833/0,
 7-10=0/480, 7-9=-1383/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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



July 2,2025

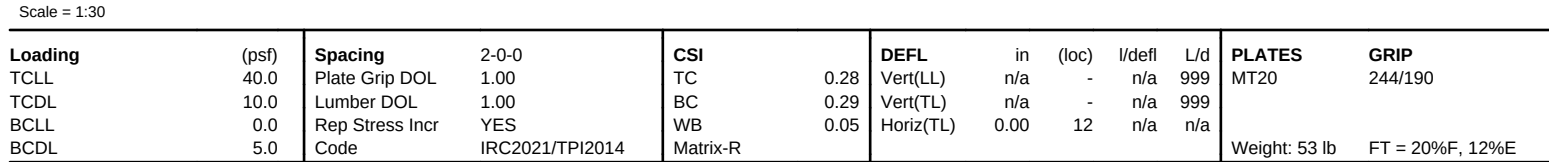
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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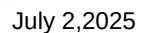
Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:28 Page: 1
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- LOAD CASE(S) Standard

NOTES

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



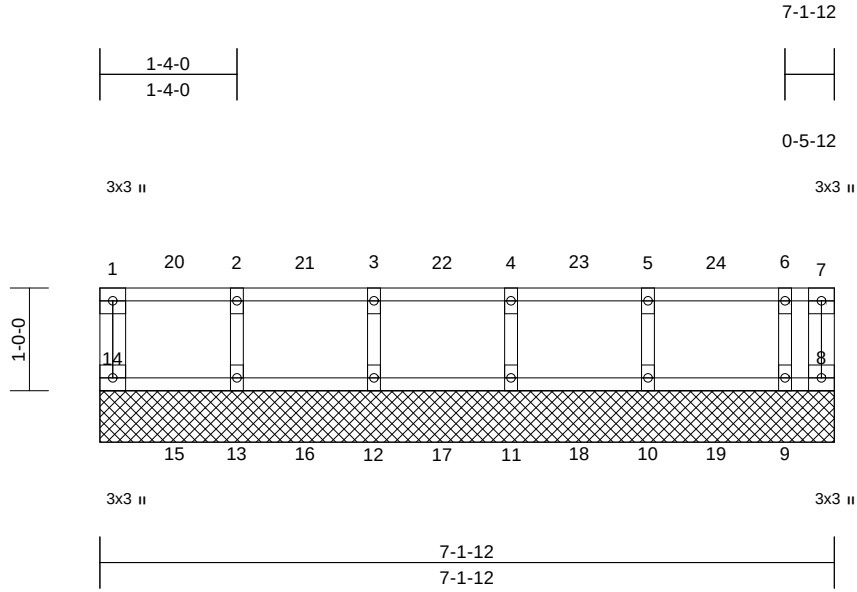
Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor	I74582453
2412-1161-A	1FGE3	Floor Supported Gable	4	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:27

Page: 1

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Scale = 1:22.4

Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.32	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.00	BC	0.31	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.15	Horiz(TL)	0.00	8	n/a	n/a	
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 31 lb FT = 20%F, 12%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)	8=7-1-12, 9=7-1-12, 10=7-1-12, 11=7-1-12, 12=7-1-12, 13=7-1-12, 14=7-1-12
Max Uplift	8=-103 (LC 20), 11=-8 (LC 17), 12=-3 (LC 19), 13=-12 (LC 18), 14=-16 (LC 17)
Max Grav	8=279 (LC 28), 9=833 (LC 20), 10=288 (LC 26), 11=277 (LC 25), 12=281 (LC 24), 13=275 (LC 23), 14=268 (LC 22)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-14=-262/23, 7-8=-281/85, 1-2=-40/5, 2-3=-40/5, 3-4=-40/5, 4-5=-40/5, 5-6=-40/5, 6-7=-40/5
BOT CHORD	13-14=-5/40, 12-13=-5/40, 11-12=-5/40, 10-11=-5/40, 9-10=-5/40, 8-9=-5/40
WEBS	2-13=-266/18, 3-12=-270/12, 4-11=-266/16, 5-10=-277/6, 6-9=-807/0

NOTES

- All plates are 1.5x3 (II) 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 14, 103 lb uplift at joint 8, 12 lb uplift at joint 13, 3 lb uplift at joint 12 and 8 lb uplift at joint 11.

- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 8-14=-7, 1-7=-67
Concentrated Loads (lb)
Vert: 6=-576



July 2,2025

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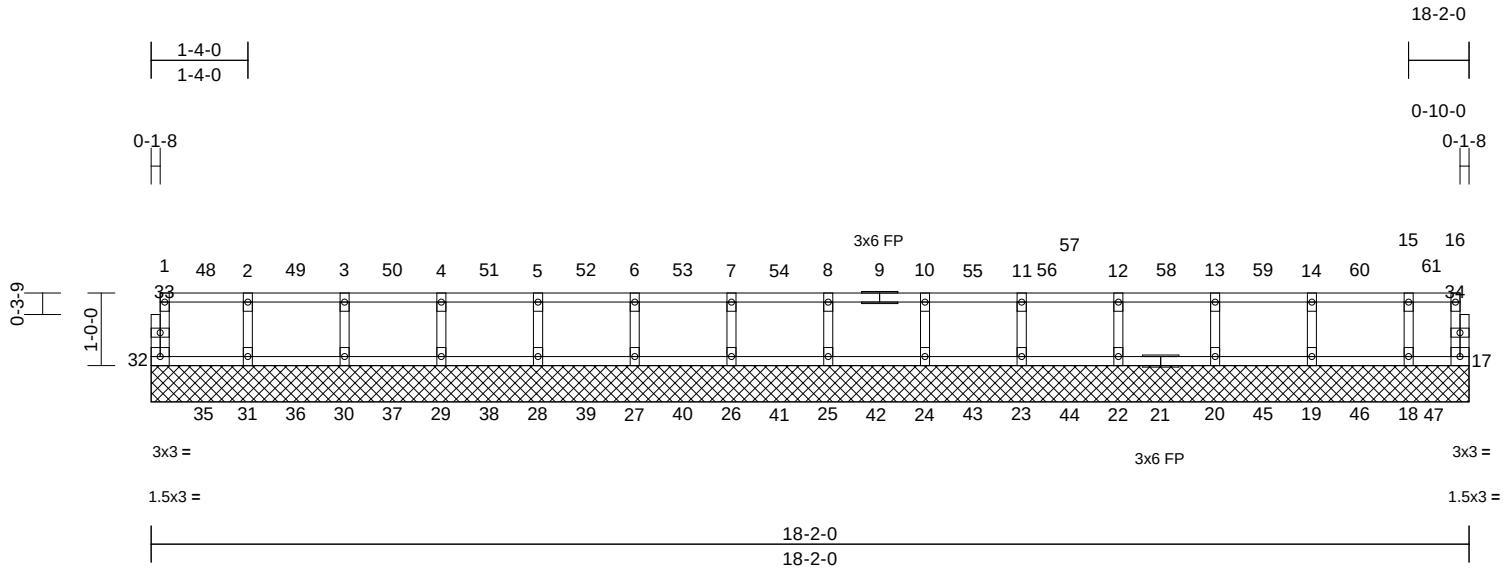
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor	
2412-1161-A	1FGE2A	Floor Supported Gable	3	1	Job Reference (optional)	I74582454

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:31.8

Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.49	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.31	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.10	Horiz(TL)	0.00	17	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 72 lb	FT = 20%F, 12%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)	17=18-2-0, 18=18-2-0, 19=18-2-0, 20=18-2-0, 22=18-2-0, 23=18-2-0, 24=18-2-0, 25=18-2-0, 26=18-2-0, 27=18-2-0, 28=18-2-0, 29=18-2-0, 30=18-2-0, 31=18-2-0, 32=18-2-0
	Max Uplift 17=50 (LC 46), 18=25 (LC 34), 20=31 (LC 43), 24=48 (LC 40), 26=8 (LC 41), 27=5 (LC 40), 28=6 (LC 39), 29=6 (LC 38), 30=6 (LC 37), 31=7 (LC 36), 32=19 (LC 35)
Max Grav	17=259 (LC 62), 18=272 (LC 61), 19=287 (LC 60), 20=254 (LC 59), 22=382 (LC 58), 23=581 (LC 57), 24=237 (LC 56), 25=291 (LC 55), 26=277 (LC 54), 27=280 (LC 53), 28=279 (LC 52), 29=280 (LC 51), 30=280 (LC 50), 31=280 (LC 49), 32=263 (LC 48)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-32=-256/24, 16-17=-248/56, 1-2=-28/7, 2-3=-28/7, 3-4=-28/7, 4-5=-28/7, 5-6=-28/7, 6-7=-28/7, 7-8=-28/7, 8-10=-28/7, 10-11=-28/7, 11-12=-28/7, 12-13=-28/7, 13-14=-28/7, 14-15=-28/7, 15-16=-28/7

BOT CHORD	31-32=-7/28, 30-31=-7/28, 29-30=-7/28, 28-29=-7/28, 27-28=-7/28, 26-27=-7/28, 25-26=-7/28, 24-25=-7/28, 23-24=-7/28, 22-23=-7/28, 20-22=-7/28, 19-20=-7/28, 18-19=-7/28, 17-18=-7/28
WEBS	2-31=-268/16, 3-30=-269/14, 4-29=-269/14, 5-28=-269/14, 6-27=-270/13, 7-26=-266/17, 8-25=-280/3, 10-24=-227/56, 11-23=-570/0, 12-22=-371/0, 13-20=-243/39, 14-19=-276/7, 15-18=-260/31

- 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) N/A
 - 6) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - 7) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
 - 8) 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
- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 17-32=-7, 1-16=-67
Concentrated Loads (lb)
Vert: 56=-349



July 2,2025

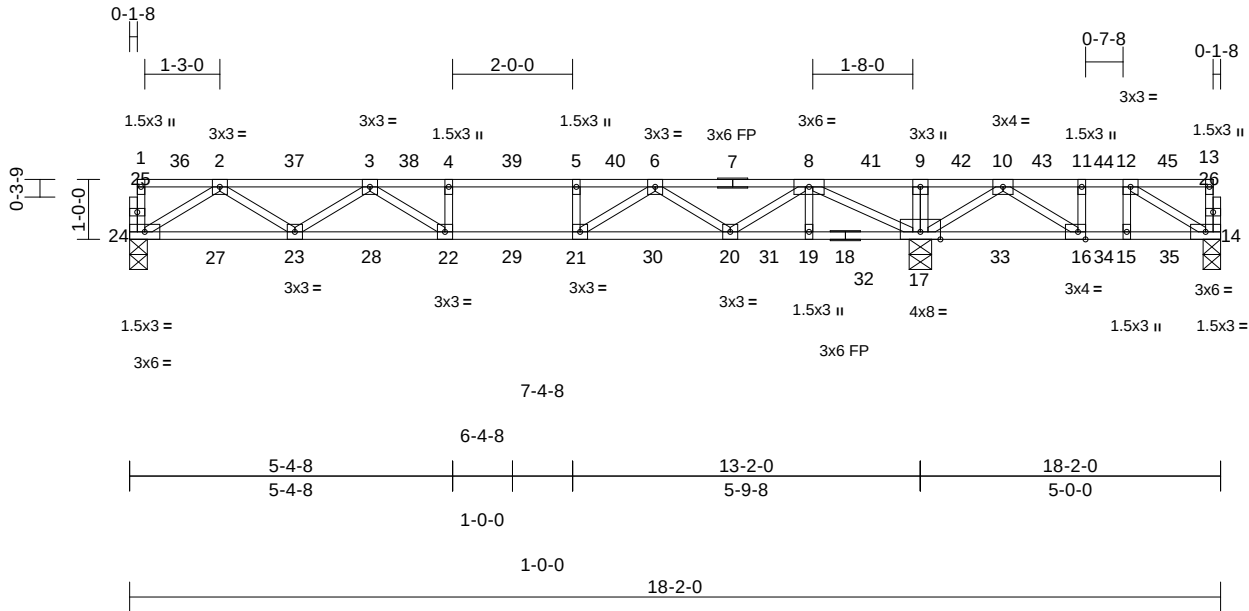
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor	174582455
2412-1161-A	1F2A	Floor	15	1	Job Reference (optional)	



Scale = 1:38.4

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

Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.76	Vert(LL)	-0.16	22-23	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.94	Vert(CT)	-0.19	22-23	>841	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.02	17	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 90 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD	2x4 SP No.2(flat) *Except* 7-13:2x4 SP SS (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 2-2-0 oc bracing.

REACTIONS

(size)	14=0-3-8, 17=0-4-8, 24=0-3-8
Max Uplift	14=-198 (LC 43)
Max Grav	14=176 (LC 58), 17=1676 (LC 1), 24=426 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-24=-258/37, 13-14=-278/2, 1-2=-18/3, 2-3=-976/0, 3-4=-1404/0, 4-5=-1404/0, 5-6=-1404/0, 6-8=-761/0, 8-9=0/1232, 9-10=0/1220, 10-11=-72/439, 11-12=-72/439, 12-13=-20/0
BOT CHORD	23-24=0/623, 22-23=0/1293, 21-22=0/1404, 20-21=0/1118, 19-20=-5/507, 17-19=-5/507, 16-17=-966/0, 15-16=-439/72, 14-15=-439/72
WEBS	4-22=-171/97, 5-21=-229/50, 9-17=-842/0, 2-24=-736/0, 2-23=0/511, 3-23=-399/0, 3-22=-187/319, 8-20=0/593, 6-20=-445/18, 6-21=-95/454, 8-19=-80/244, 8-17=-1716/0, 10-17=-447/0, 12-14=-84/517, 10-16=0/685, 11-16=-294/0, 12-15=-104/175

- NOTES
- Unbalanced floor live loads have been considered for this design.
 - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14. This connection is for uplift only and does not consider lateral forces.

- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
 - 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
- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 14-24=-7, 1-13=-67
Concentrated Loads (lb)
Vert: 41=-716



July 2,2025

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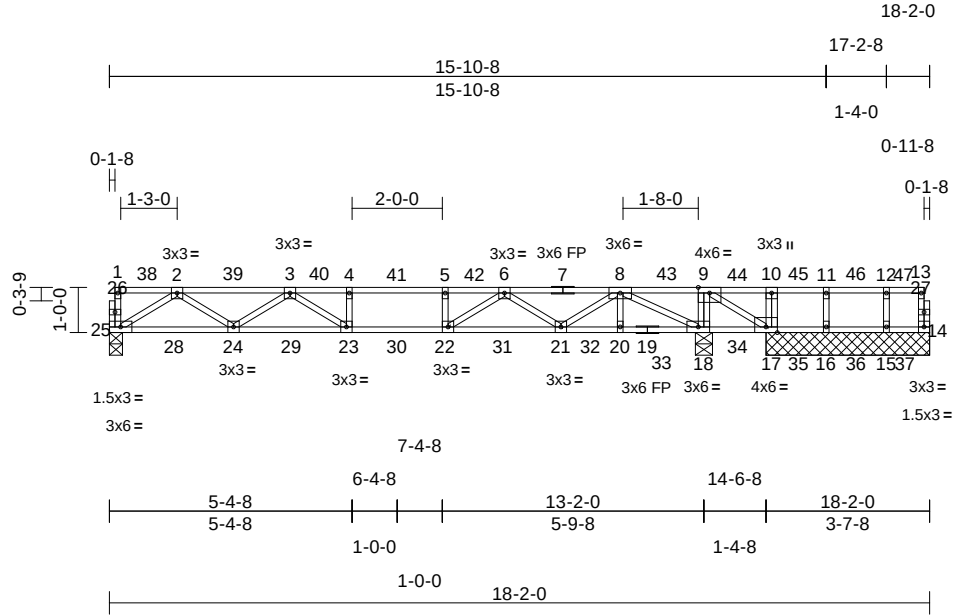
Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor	174582456
2412-1161-A	1F3	Floor	3	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:22

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Scale = 1:51

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.79	Vert(LL)	-0.16	23-24	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.94	Vert(CT)	-0.19	23-24	>840	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.02	18	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 88 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD	2x4 SP No.2(flat) *Except* 7-13:2x4 SP SS (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 2-2-0 oc bracing.

REACTIONS	(size)	14=3-7-8, 15=3-7-8, 16=3-7-8, 17=3-7-8, 18=0-4-8, 25=0-3-8
	Max Uplift	14=32 (LC 17), 15=22 (LC 39), 17=946 (LC 35)
	Max Grav	14=262 (LC 52), 15=263 (LC 51), 16=334 (LC 50), 17=246 (LC 49), 18=2228 (LC 1), 25=419 (LC 3)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-25=-258/37, 13-14=-259/34, 1-2=-18/3, 2-3=-955/0, 3-4=-1351/0, 4-5=-1351/0, 5-6=-1351/0, 6-8=-677/0, 8-9=0/1321, 9-10=-18/2, 10-11=-18/2, 11-12=-18/2, 12-13=-18/2
BOT CHORD	24-25=0/611, 23-24=0/1260, 22-23=0/1351, 21-22=0/1045, 20-21=-104/476, 18-20=-104/476, 17-18=-1321/0, 16-17=-2/18, 15-16=-2/18, 14-15=-2/18
WEBS	4-23=-165/100, 5-22=-236/42, 9-18=-1444/0, 10-17=-106/201, 9-17=0/1529, 2-25=-723/0, 2-24=0/507, 3-24=-393/6, 3-23=-197/302, 8-21=0/610, 6-21=-450/10, 6-22=-75/472, 11-16=-319/0, 12-15=-253/29, 8-20=-93/234, 8-18=-1737/0

NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are 1.5x3 (II) MT20 unless otherwise indicated.

- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 946 lb uplift at joint 17.
- N/A
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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
 - Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 14-25=-7, 1-13=-67
Concentrated Loads (lb)
Vert: 43=-733



July 2,2025

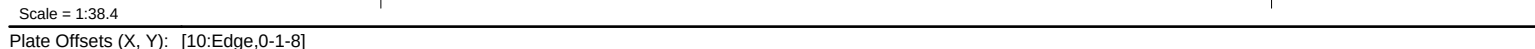
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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

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Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:22 Page: 1
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LUMBER			4) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
TOP CHORD	2x4 SP SS(flat)		
BOT CHORD	2x4 SP No.2(flat)		
WEBS	2x4 SP No.3(flat)		
OTHERS	2x4 SP No.3(flat)		
BRACING			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.
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.		6) CAUTION, Do not erect truss backwards.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.		
REACTIONS			LOAD CASE(S) Standard
	(size) 10=0-3-8, 11=0-4-8, 17=0-3-8		1) Dead + Floor Live (balanced): Lumber Increase=1.00,
	Max Uplift 10=-812 (LC 3)		Plate Increase=1.00
	Max Grav 10=-160 (LC 44), 11=2147 (LC 1), 17=422 (LC 3)		Uniform Loads (lb/ft)
			Vert: 10-17=-7, 1-9=-67
			Concentrated Loads (lb)
			Vert: 33=-733
FORCES			
	(lb) - Maximum Compression/Maximum Tension		
TOP CHORD	1-17=-258/36, 9-10=-171/113, 1-2=-18/3, 2-3=-964/0, 3-4=-1375/0, 4-5=-1375/0, 5-6=-1375/0, 6-7=-717/0, 7-8=0/1263, 8-9=-12/8		
BOT CHORD	16-17=0/616, 15-16=0/1276, 14-15=0/1375, 13-14=0/1075, 12-13=-38/482, 11-12=-38/482, 10-11=-1263/0		
WEBS	4-15=-167/111, 5-14=-237/49, 8-11=-1367/0, 8-10=0/1445, 2-17=-728/0, 2-16=0/507, 3-16=-399/2, 3-15=-194/310, 7-13=0/595, 6-13=-439/19, 6-14=-88/468, 7-12=-91/235, 7-11=-1744/0		

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 812 lb uplift at joint 10.
- 3) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.

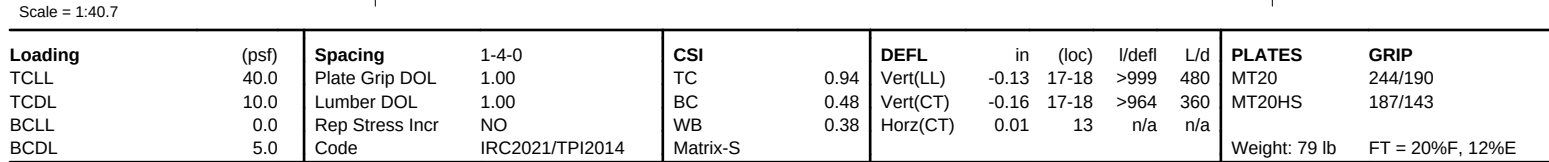


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- 5) N/A
- 6) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 7) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 8) 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.
- 9) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00,
Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 11-19=-7, 1-10=-67
Concentrated Loads (lb)
Vert: 37=-234

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 2-0-0 oc.



July 2, 2025

Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	1FGE7	Floor Supported Gable	4	1	Job Reference (optional)

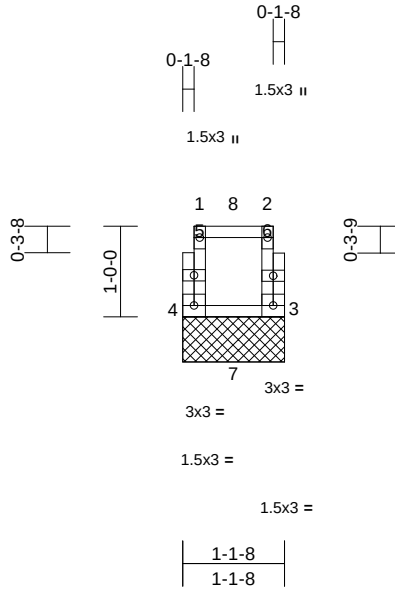
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Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:28

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Scale = 1:25.5

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	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.15	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 7 lb	FT = 20%F, 12%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 1-1-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size) 3=1-1-8, 4=1-1-8
	Max Grav 3=265 (LC 10), 4=265 (LC 9)

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

TOP CHORD	1-4=-252/0, 2-3=-253/0, 1-2=-32/0
BOT CHORD	3-4=0/32

NOTES

- 1) Gable requires continuous bottom chord bearing.
- 2) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 3) Gable studs spaced at 1-4-0 oc.
- 4) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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



July 2, 2025

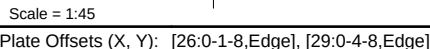
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LUMBER		5) All plates are MT20 plates unless otherwise indicated.
TOP CHORD	2x4 SP SS(flat) *Except* 7-1:2x4 SP No.2 (flat)	3) Bearing at joint(s) 29 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
BOT CHORD	2x4 SP SS(flat)	4) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
WEBS	2x4 SP No.3(flat)	5) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
OTHERS	2x4 SP No.3(flat)	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.
BRACING		7) CAUTION, Do not erect truss backwards.
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.	LOAD CASE(S) Standard
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.	1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
REACTIONS	(size) 17=0-4-8, 22=0-4-8, 29=0-3-8 Max Grav 17=746 (LC 4), 22=2870 (LC 1), 29=404 (LC 3)	Uniform Loads (lb/ft) Vert: 17-29=-8, 1-16=-80 Concentrated Loads (lb) Vert: 14=-29, 11=-1893
FORCES		
TOP CHORD	(lb) - Maximum Compression/Maximum Tension 1-29=-262/34, 16-17=-274/25, 1-2=-19/2, 2-3=-872/6, 3-4=-922/382, 4-5=-922/382, 5-6=-922/382, 6-8=0/1116, 8-9=0/2669, 9-10=0/2669, 10-11=-3320/0, 11-12=-3419/0, 12-13=-2746/0, 13-14=-2746/0, 14-15=-1857/0, 15-16=0/0, 28-29=0/584, 27-28=-115/1069, 26-27=-382/922, 25-26=-785/332, 24-25=-1420/0, 22-24=-1420/0, 21-22=0/1144, 20-21=0/3258, 19-20=0/2746, 18-19=0/2746, 17-18=0/1079	
BOT CHORD	28-29=0/584, 27-28=-115/1069, 26-27=-382/922, 25-26=-785/332, 24-25=-1420/0, 22-24=-1420/0, 21-22=0/1144, 20-21=0/3258, 19-20=0/2746, 18-19=0/2746, 17-18=0/1079	
WEBS	4-27=-66/196, 5-26=-323/0, 9-22=-291/11, 8-25=0/844, 6-25=-872/0, 6-26=0/872, 15-17=-1279/0, 15-18=0/1042, 14-18=-1120/0, 14-19=0/389, 2-29=-690/0, 2-28=-42/367, 3-28=-241/207, 3-27=-519/0, 10-22=-3722/0, 12-20=-905/0, 13-20=0/383, 11-21=-2086/0, 12-21=0/557, 10-21=0/2996, 8-24=-65/261, 8-22=-1564/0	

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

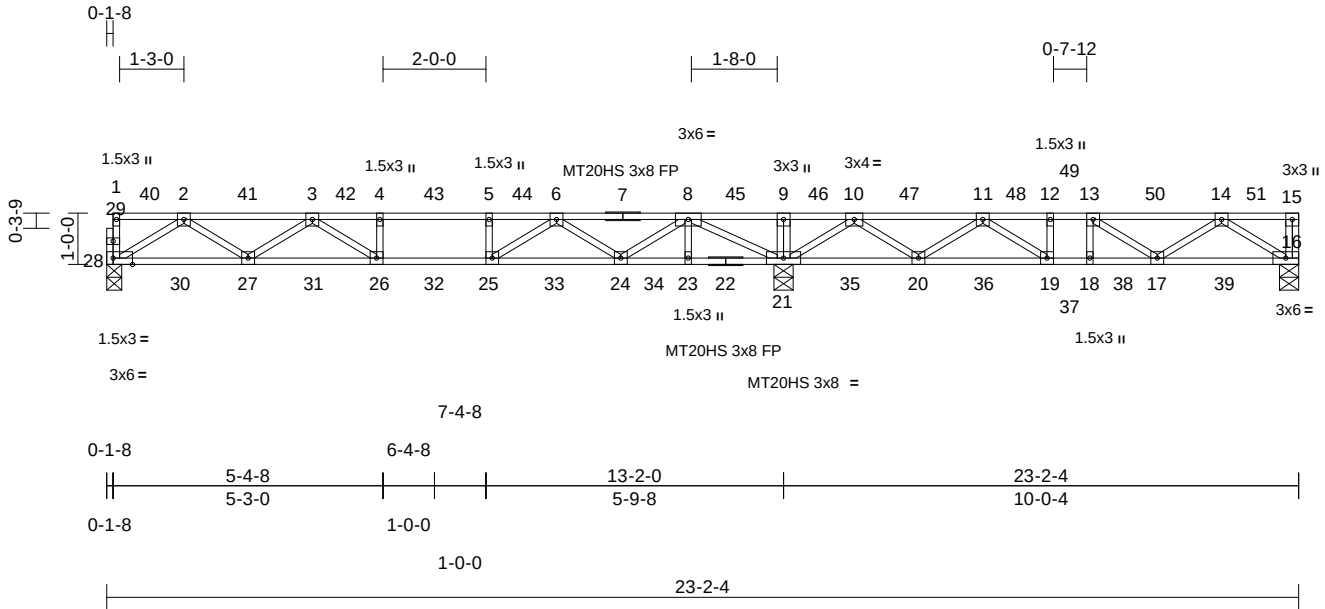
Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	1F9A	Floor	2	1	174582462
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

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Scale = 1:44.8

Plate Offsets (X, Y): [28:0-4-8,Edge]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.67	Vert(LL)	-0.13	26-27	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.93	Vert(CT)	-0.16	26-27	>949	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	NO	WB	0.33	Horz(CT)	0.02	16	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 114 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD	2x4 SP No.2(flat) *Except* 7-15:2x4 SP SS (flat)
BOT CHORD	2x4 SP SS(flat) *Except* 22-16:2x4 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)	16=0-4-8, 21=0-4-8, 28=0-3-8
Max Grav	16=387 (LC 66), 21=1307 (LC 1), 28=397 (LC 3)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-28=-259/36, 15-16=-259/40, 1-2=-18/3, 2-3=-896/0, 3-4=-1197/0, 4-5=-1197/0, 5-6=-1197/0, 6-8=-403/270, 8-9=0/1366, 9-10=0/1366, 10-11=-805/64, 11-12=-1065/0, 12-13=-1065/0, 13-14=-847/0, 14-15=0/0
BOT CHORD	27-28=0/579, 26-27=0/1162, 25-26=0/1197, 24-25=-96/863, 23-24=-450/0, 21-23=-450/0, 20-21=-361/393, 19-20=0/1172, 18-19=0/1065, 17-18=0/1065, 16-17=0/546
WEBS	4-26=-142/121, 5-25=-240/35, 9-21=-194/118, 2-28=-684/0, 2-27=0/458, 3-27=-325/69, 3-26=-290/220, 8-24=0/696, 6-24=-597/0, 6-25=-28/544, 10-21=-1405/0, 14-16=-648/0, 10-20=0/634, 14-17=0/460, 11-20=-603/0, 13-17=-392/86, 11-19=-378/93, 12-19=-46/270, 13-18=-120/185, 8-23=-76/250, 8-21=-1192/0

NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.

- All plates are 3x3 (=) MT20 unless otherwise indicated.
- Bearing at joint(s) 28 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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)

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 16-28=-7, 1-15=-67
Concentrated Loads (lb)
Vert: 47=-333



July 2,2025

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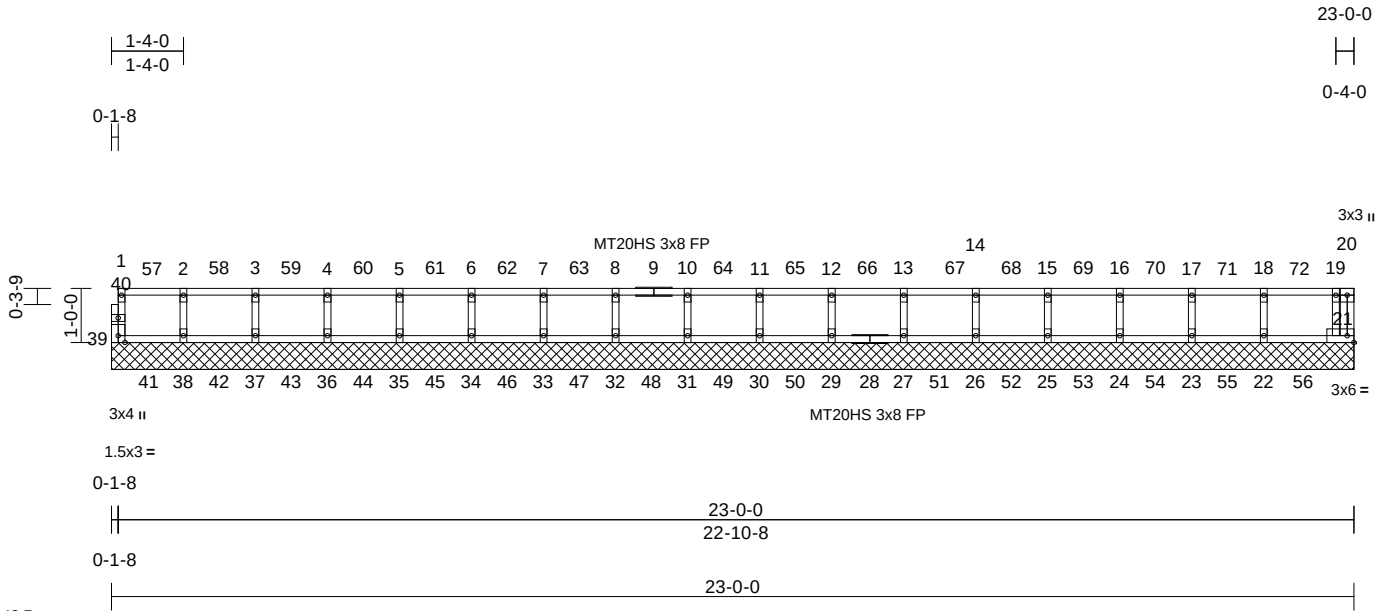
Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor	I74582463
2412-1161-A	1FGE4	Floor Supported Gable	1	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788,

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Scale = 1:42.7

Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.40	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.34	n/a	-	n/a	999	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	NO	WB	0.07	0.00	21	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 91 lb	FT = 20%F, 12%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)	21=23-0-0, 22=23-0-0, 23=23-0-0, 24=23-0-0, 25=23-0-0, 26=23-0-0, 27=23-0-0, 29=23-0-0, 30=23-0-0, 31=23-0-0, 32=23-0-0, 33=23-0-0, 34=23-0-0, 35=23-0-0, 36=23-0-0, 37=23-0-0, 38=23-0-0, 39=23-0-0
Max Uplift	21=-6 (LC 19), 22=-1 (LC 57), 23=-15 (LC 59), 24=-1 (LC 58), 25=-26 (LC 57), 29=-18 (LC 54), 30=-2 (LC 11), 31=-6 (LC 52), 32=-5 (LC 51), 33=-6 (LC 50), 34=-6 (LC 49), 35=-6 (LC 48), 36=-6 (LC 47), 37=-6 (LC 43), 38=-7 (LC 20), 39=-15 (LC 5)
Max Grav	21=268 (LC 77), 22=282 (LC 76), 23=278 (LC 75), 24=285 (LC 74), 25=259 (LC 73), 26=421 (LC 72), 27=332 (LC 71), 29=267 (LC 70), 30=283 (LC 69), 31=279 (LC 68), 32=280 (LC 67), 33=280 (LC 66), 34=280 (LC 65), 35=280 (LC 64), 36=280 (LC 63), 37=280 (LC 62), 38=279 (LC 61), 39=264 (LC 60)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD

1-39=-251/22, 20-21=-88/102, 1-2=-33/4, 2-3=-33/4, 3-4=-33/4, 4-5=-33/4, 5-6=-33/4, 6-7=-33/4, 7-8=-33/4, 8-10=-33/4, 10-11=-33/4, 11-12=-33/4, 12-13=-33/4, 13-14=-33/4, 14-15=-33/4, 15-16=-33/4, 16-17=-33/4, 17-18=-33/4, 18-19=-33/4, 19-20=-44/9
38-39=-4/33, 37-38=-4/33, 36-37=-4/33, 35-36=-4/33, 34-35=-4/33, 33-34=-4/33, 32-33=-4/33, 31-32=-4/33, 30-31=-4/33, 29-30=-4/33, 27-29=-4/33, 26-27=-4/33, 25-26=-4/33, 24-25=-4/33, 23-24=-4/33, 22-23=-4/33, 21-22=-4/33
2-38=-268/16, 3-37=-269/14, 4-36=-269/14, 5-35=-269/14, 6-34=-269/14, 7-33=-269/14, 8-32=-269/13, 10-31=-268/15, 11-30=-272/11, 12-29=-256/26, 13-27=-321/0, 14-26=-410/0, 15-25=-248/34, 16-24=-274/8, 17-23=-267/17, 18-22=-271/12, 19-21=-239/96

BOT CHORD

WEBS

NOTES

- All plates are MT20 plates unless otherwise indicated.
- 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.
- Bearing at joint(s) 39 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 39, 6 lb uplift at joint 21, 7 lb uplift at joint 38, 6 lb uplift at joint 37, 6 lb uplift at joint 36, 6 lb uplift at joint 35, 6 lb uplift at joint 34, 6 lb uplift at joint 33, 5 lb uplift at joint 32, 6 lb uplift at joint 31, 2 lb uplift at joint 30, 18 lb uplift at joint 29, 26 lb uplift at joint 25, 1 lb uplift at joint 24, 15 lb uplift at joint 23 and 1 lb uplift at joint 22.

- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
 - 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
- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 21-39=-7, 1-20=-67
Concentrated Loads (lb)
Vert: 67=-167



July 2,2025

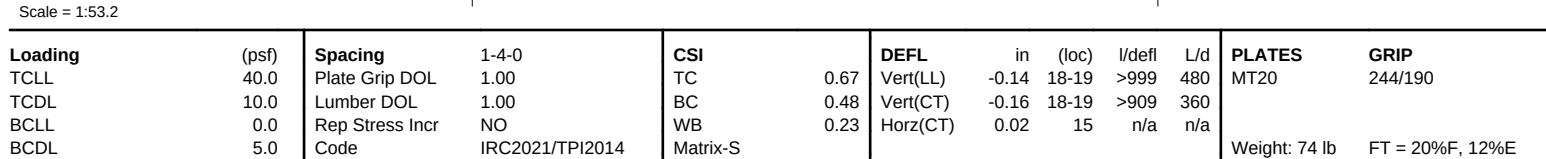
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:22 Page: 1
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- 5) N/A
- 6) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 7) 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.
- 8) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

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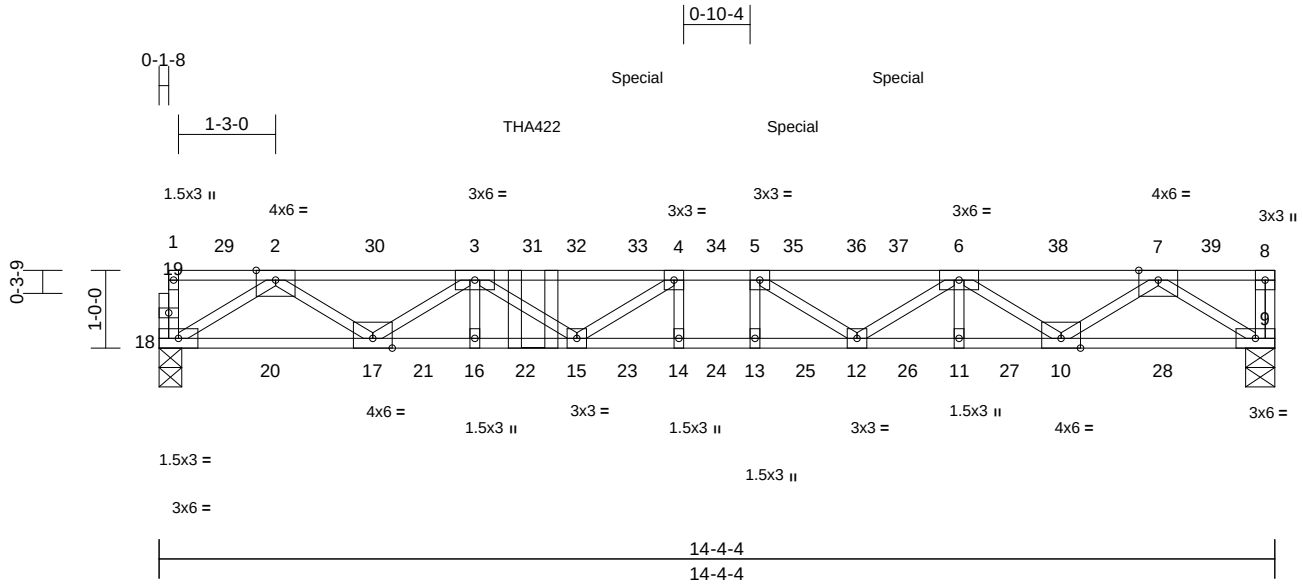
Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	1FGR2	Floor Girder	1	1	174582508
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:29

Page: 1

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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	0.58	Vert(LL)	-0.23	13-14	>738	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.66	Vert(CT)	-0.26	13-14	>645	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.55	Horz(CT)	0.05	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 73 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD	2x4 SP SS(flat)
BOT CHORD	2x4 SP SS(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)	9=0-4-8, 18=0-3-8
	Max Grav	9=923 (LC 1), 18=917 (LC 1)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-18=-273/28, 8-9=-272/25, 1-2=-19/2, 2-3=-2302/0, 3-4=-3619/0, 4-5=-3945/0, 5-6=-3618/0, 6-7=-2302/0, 7-8=0/0
BOT CHORD	17-18=0/1349, 16-17=0/3260, 15-16=0/3260, 14-15=0/3945, 13-14=0/3945, 12-13=0/3945, 11-12=0/3258, 10-11=0/3258, 9-10=0/1350
WEBS	2-18=-1595/0, 7-9=-1600/0, 2-17=0/1164, 7-10=0/1162, 3-17=-1151/0, 6-10=-1149/0, 4-14=-341/359, 5-13=-343/358, 3-16=-101/241, 3-15=0/568, 4-15=-761/154, 6-11=-101/241, 6-12=0/570, 5-12=-759/151

NOTES

- Unbalanced floor live loads have been considered for this design.
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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 at 4-9-12 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) 84 lb down and 186 lb up at 6-2-0, and 84 lb down and 186 lb up at 8-2-0, and 224 lb down and 107 lb up at 9-6-4 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

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 9-18=-10, 1-8=-100
Concentrated Loads (lb)
Vert: 31=-144 (B), 33=-4 (B), 35=-4 (B), 37=-144 (B)



July 2, 2025

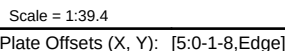
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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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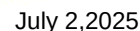
818 Soundside Road
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Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:29 Page: 1
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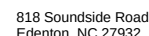
LUMBER		7) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
TOP CHORD	2x4 SP No.2(flat)	
BOT CHORD	2x4 SP No.2(flat)	
WEBS	2x4 SP No.3(flat)	
OTHERS	2x4 SP No.3(flat)	
BRACING		8) CAUTION, Do not erect truss backwards.
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.	9) Use Simpson Strong-Tie THA422 (Single Chord Girder) or equivalent at 1-10-4 from the left end to connect truss(es) to front face of top chord.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 6-7.	10) Fill all nail holes where hanger is in contact with lumber.
REACTIONS	(size) 7=0-3-8, 10= Mechanical Max Uplift 10=-7 (LC 4) Max Grav 7=709 (LC 28), 10=395 (LC 11)	11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
FORCES	(lb) - Maximum Compression/Maximum Tension	LOAD CASE(S) Standard
TOP CHORD	1-10=-287/0, 5-6=-5/263, 1-2=0/0, 2-3=254/143, 3-4=-95/99, 4-5=0/99	1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00 Uniform Loads (lb/ft) Vert: 6-10=-10, 1-5=-100 Concentrated Loads (lb) Vert: 5=-75, 2=-144 (F)

- ## NOTES
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) All plates are MT20 plates unless otherwise indicated.
 - 3) Refer to girder(s) for truss to truss connections.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 10.
 - 5) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
 - 6) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord. nonconcurrent with any other live loads.



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Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	1F16	Floor	2	1	Job Reference (optional)

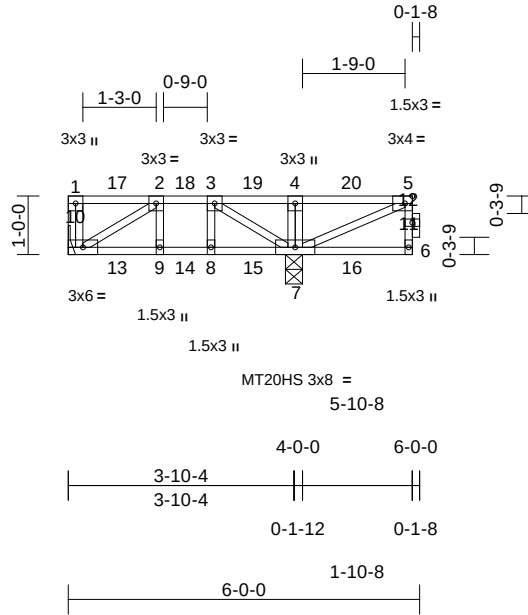
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Page: 1

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Scale = 1:39.4

Plate Offsets (X, Y): [5:0-1-8,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	0.64	Vert(LL)	-0.02	9-10	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.51	Vert(CT)	-0.03	9-10	>999	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.00	7	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 33 lb	FT = 20%F, 12%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, Except:
 10-0-0 oc bracing: 6-7.

REACTIONS (size) 7=0-3-8, 10= Mechanical
 Max Uplift 10=-176 (LC 28)
 Max Grav 7=775 (LC 16), 10=206 (LC 24)

FORCES (lb) - Maximum Compression/Maximum
 Tension

TOP CHORD 1-10=-281/0, 5-6=-6/261, 1-2=0/0,
 2-3=-61/433, 3-4=0/993, 4-5=0/993
 BOT CHORD 9-10=-433/61, 8-9=-433/61, 7-8=-433/61,
 6-7=0/0
 WEBS 4-7=-277/0, 3-7=-653/0, 2-10=-71/507,
 2-9=-138/133, 3-8=0/262, 5-7=-1091/0

NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are MT20 plates 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 176 lb uplift at joint 10.
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.

- 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

- Dead + Floor Live (balanced): Lumber Increase=1.00,
 Plate Increase=1.00
 Uniform Loads (lb/ft)
 Vert: 6-10=-10, 1-5=-100
 Concentrated Loads (lb)
 Vert: 5=-175



July 2,2025

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818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	1FGE10	Floor Supported Gable	1	1	Job Reference (optional)

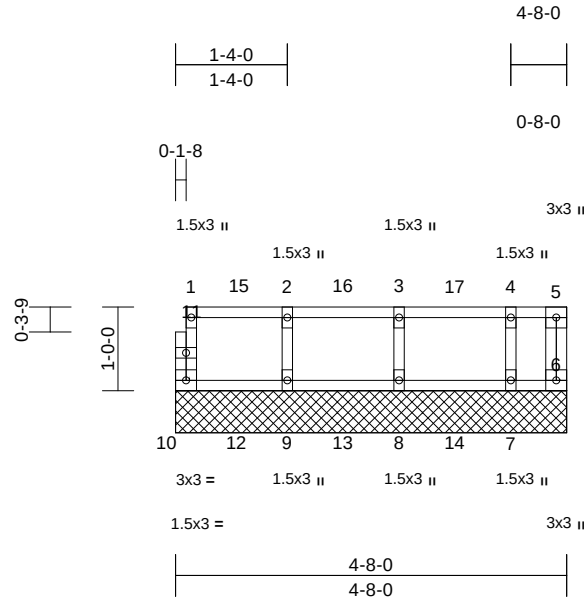
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Page: 1

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Scale = 1:27.5

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	0.27	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.00	BC	0.28	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	6	n/a	n/a	
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 21 lb FT = 20%F, 12%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)

- 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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 4-8-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS	(size)	6=4-8-0, 7=4-8-0, 8=4-8-0, 9=4-8-0, 10=4-8-0
	Max Uplift	6=-68 (LC 16), 7=-26 (LC 14), 10=-14 (LC 15)
	Max Grav	6=259 (LC 22), 7=282 (LC 17), 8=295 (LC 20), 9=293 (LC 19), 10=268 (LC 18)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-10=-260/21, 5-6=-254/75, 1-2=-35/6, 2-3=-35/6, 3-4=-35/6, 4-5=-35/6
BOT CHORD	9-10=-6/35, 8-9=-6/35, 7-8=-6/35, 6-7=-6/35
WEBS	2-9=-277/2, 3-8=-279/0, 4-7=-264/19

NOTES

- 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.
- N/A
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.



July 2,2025

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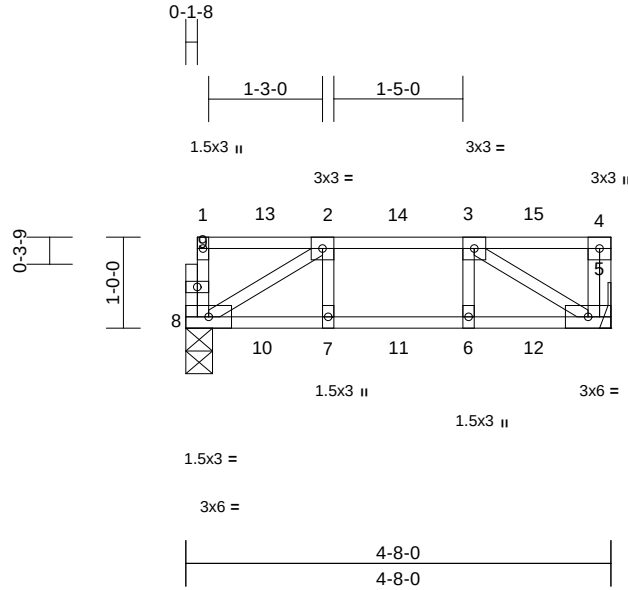
Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor
2412-1161-A	1F14	Floor	1	1	174582512
Job Reference (optional)					

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:27

Page: 1

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Scale = 1:25.3

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	0.43	Vert(LL)	-0.03	5-6	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.48	Vert(CT)	-0.03	5-6	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 24 lb	FT = 20%F, 12%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 4-8-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 8=0-3-8
 Max Grav 5=319 (LC 11), 8=318 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-8=-266/11, 4-5=-265/10, 1-2=-19/1, 2-3=-319/0, 3-4=0/0

BOT CHORD 7-8=0/319, 6-7=0/319, 5-6=0/319

WEBS 3-5=-373/0, 2-8=-374/0, 2-7=-47/205, 3-6=-48/205

NOTES

- Unbalanced floor live loads have been considered for this design.
- Refer to girder(s) for truss to truss connections.
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 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



July 2, 2025

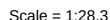
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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

ENGINEERING BY
TRENCO
 A MiTek Affiliate

818 Soundside Road
 Edenton, NC 27932

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Mon Jun 30 14:56:29 Page: 1
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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	0.28	Vert(LL)	n/a	-	n/a	999	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.32	Vert(TL)	n/a	-	n/a	999	
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	6	n/a	n/a	
BCDL	5.0	Code	IRC2021/TP12014	Matrix-R							
										Weight: 21 lb	FT = 20%F, 12%E

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)

- 7) 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.
- 8) CAUTION. Do not erect truss backwards.

TOP CHORD	Structural wood sheathing directly applied or 4-5-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

Max Uplift 6=-2 (LC 5), 7=-4 (LC 13), 8=-46 (LC 6), 9=-16 (LC 5)
Max Grav 6=277 (LC 19), 7=298 (LC 18), 8=288 (LC 17), 9=272 (LC 16)

Tension

TOP CHORD 1-9=-265/22, 5-6=-70/93, 1-2=-46/10,

$$2-3=-46/10, 3-4=-46/10, 4-5=-53/14$$

BOT CHORD 8-9=-10/46, 7-8=-10/46, 6-7=-10/46

WEBS 2-8=-275/32, 3-7=-281/9, 4-6=-239/68

- 1) Gable requires continuous bottom chord bearing.
- 2) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 3) Gable studs spaced at 1-4-0 oc.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 6.

- 5) N/A

- 6) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.



July 2, 2025



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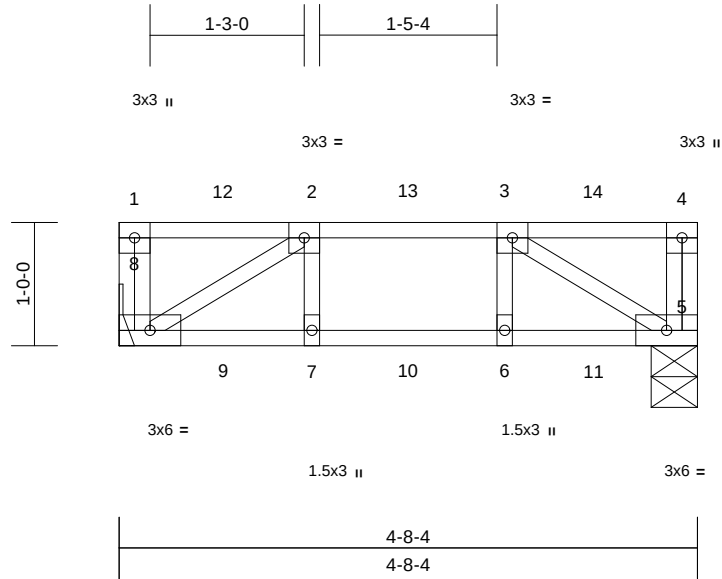
Job	Truss	Truss Type	Qty	Ply	Stonefield Rev 3-Elev 1-Floor	174582514
2412-1161-A	1F15	Floor	1	1	Job Reference (optional)	

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Scale = 1:18.7

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	0.43	Vert(LL)	-0.03	5-6	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.48	Vert(CT)	-0.03	7-8	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 25 lb	FT = 20%F, 12%E

LUMBER

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

BRACING

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

REACTIONS (size) 5=0-4-8, 8= Mechanical
Max Grav 5=320 (LC 11), 8=320 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-8=-265/10, 4-5=-265/10, 1-2=0/0, 2-3=-320/0, 3-4=0/0

BOT CHORD 7-8=0/320, 6-7=0/320, 5-6=0/320

WEBS 3-5=-374/0, 2-8=-374/0, 2-7=-48/205, 3-6=-48/205

NOTES

- Unbalanced floor live loads have been considered for this design.
- Refer to girder(s) for truss to truss connections.
- This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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LOAD CASE(S) Standard



July 2, 2025

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

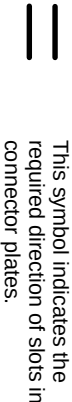
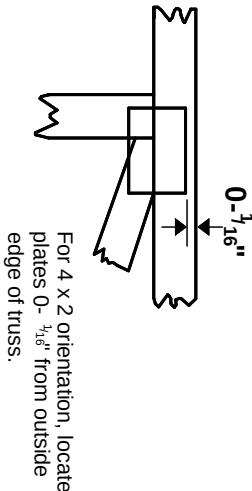
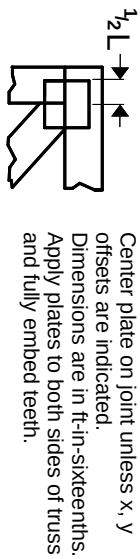
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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Symbols

PLATE LOCATION AND ORIENTATION



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

PLATE SIZE

4 X 4

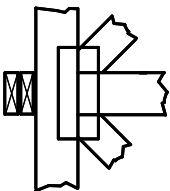
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

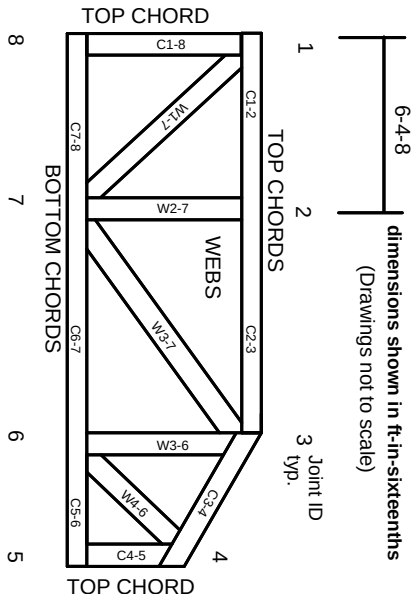
BEARING



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

Industry Standards:
ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

Product Code Approvals

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

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.
Lumber design values are in accordance with ANSI/TP1 1 section 6.3. These truss designs rely on lumber values established by others.

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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