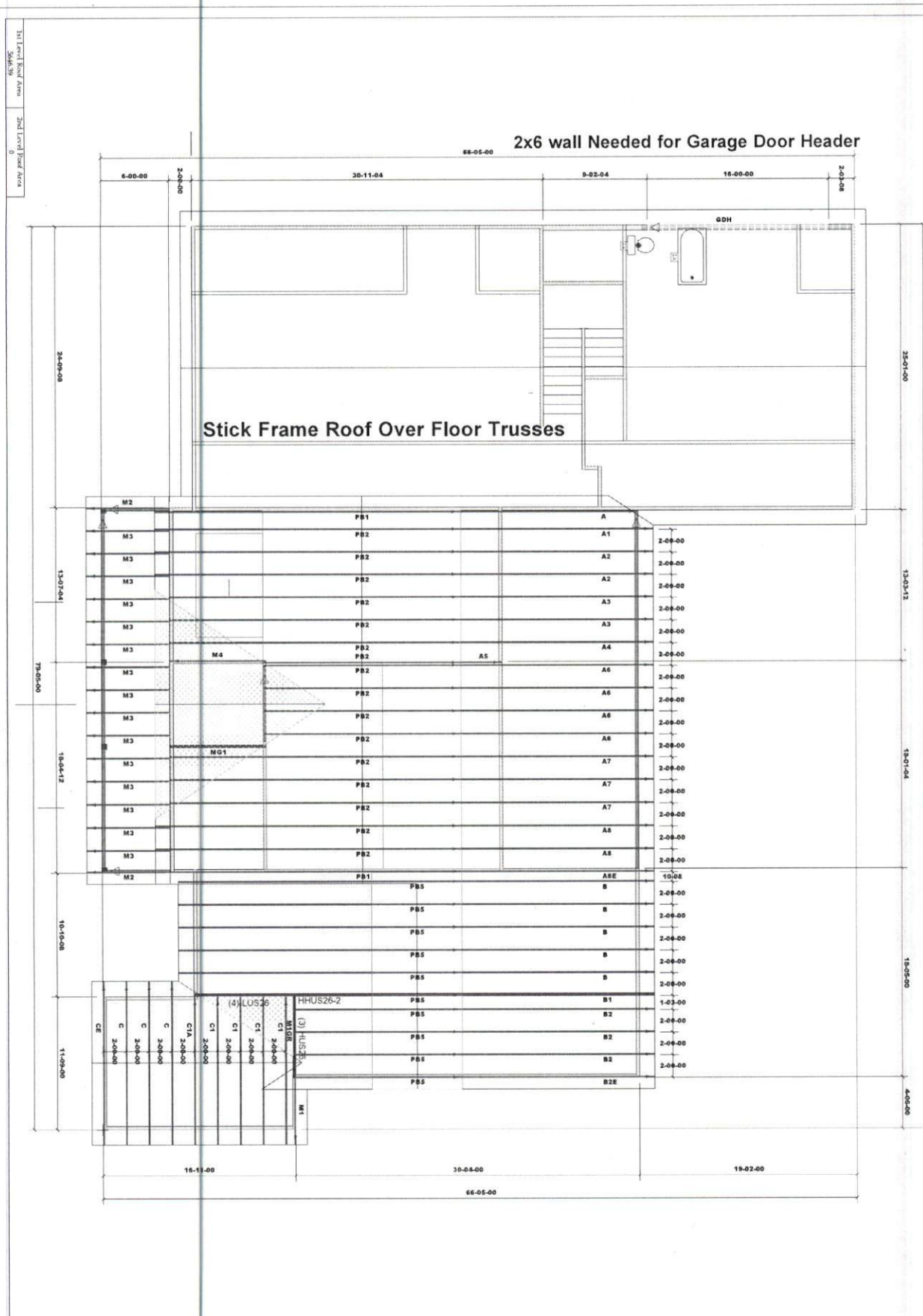


THIS LAYOUT IS INTENDED FOR THE PURPOSE OF TRUSS LOCATION AND PLACEMENT ONLY. REFER TO THE BUILDING PLANS FOR ACTUAL BUILDING CONSTRUCTION.



GENERAL NOTES:

- DO NOT CUT OR MODIFY TRUSSES
- TRUSSES ARE SPACED 24" ON CENTER UNLESS OTHERWISE NOTED
- REFER TO THE INDIVIDUAL TRUSS DESIGN DRAWINGS FOR THE LOCATION OF LATERAL BRACING AND MULTI-PLY CONNECTION REQUIREMENTS.
- PER ANSI TP1 1-2002 THE TRUSS ENGINEER IS RESPONSIBLE FOR TRUSS TO TRUSS CONNECTIONS AND TRUSS PLY TO PLY CONNECTIONS. THIS TRUSS LAYOUT PLAN RECOMMENDS TRUSS TO BEARING CONNECTIONS AND TRUSS TO BEAM CONNECTIONS WHICH SHALL BE REVIEWED BY THE BUILDING DESIGNER. IT IS THE RESPONSIBILITY OF THE BUILDING DESIGNER TO RESOLVE ALL ROOF FORCES ADEQUATELY TO THE FOUNDATION.

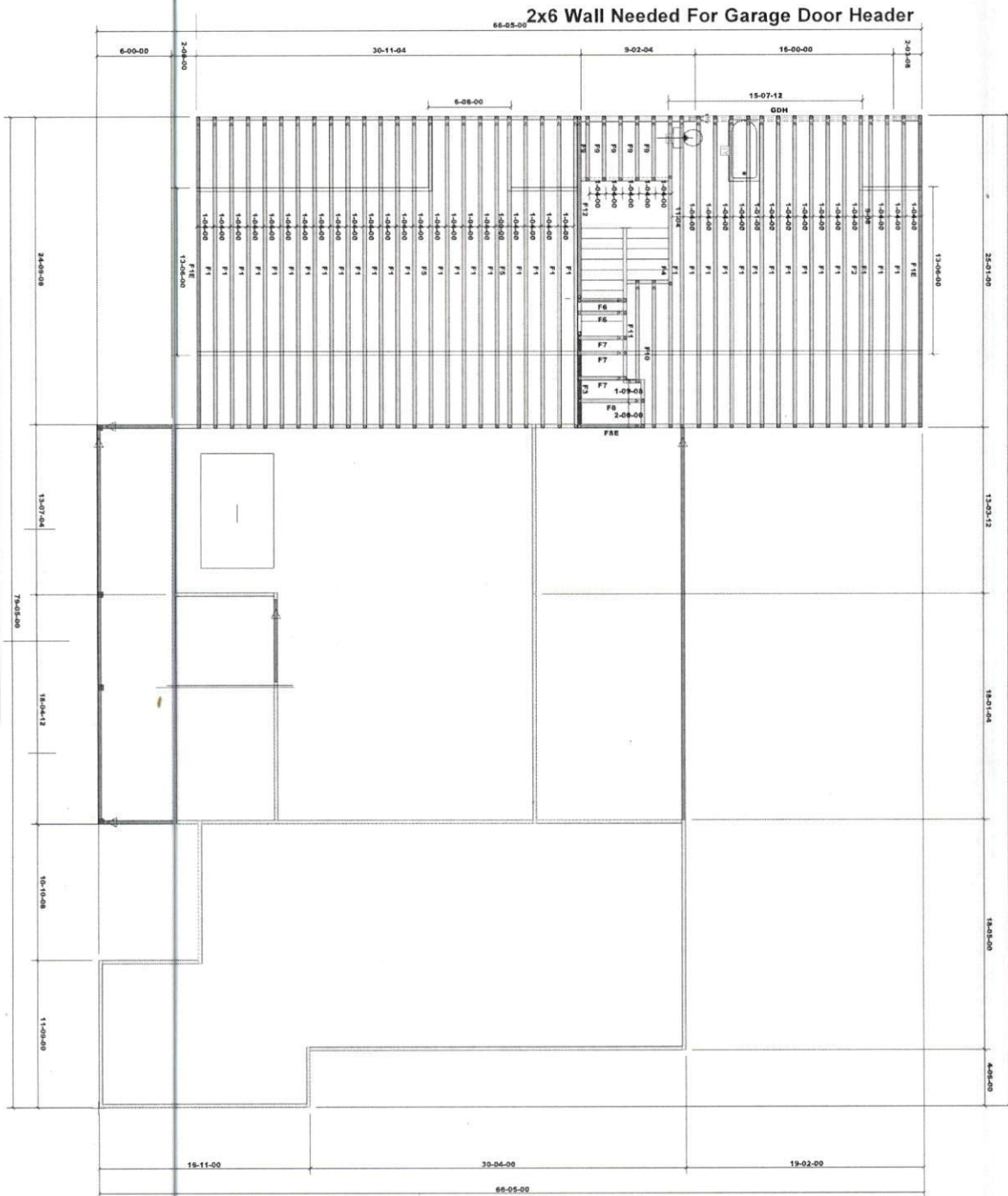
TOP LIVE LOAD: 20.0 BR/FT
TOP DEAD LOAD: 10.0 BR/FT
BOTTOM DEAD LOAD: 10.0 BR/FT
WIND SPEED: 130 mph

PROJECT:	1393 Walker RD Castio		
CUSTOMER:	Southeastern Construction		
MODEL:			
QUOTE #:	PRINT DATE:	DRAWN BY:	SCALE:
2100826	10/22/2021	Rodney Evans	N.T.S

DEDICATED TO QUALITY AND EXCELLENCE  
 200 S. BENTLEY ROAD  
 DUNN, MISSISSIPPI 39134  
 PHONE: 910-872-8800



THIS LAYOUT IS INTENDED FOR THE PURPOSE OF TRUSS LOCATION AND PLACEMENT ONLY. REFER TO THE BUILDING PLANS FOR ACTUAL BUILDING CONSTRUCTION.



1st Level Floor Area	2nd Level Floor Area	3rd Level Floor Area
0	0	0

Product	Length	Product	Pins	Net Qty	Fab Type
GDH	20-00-00	1-3/4" X 16" VERSALAMG 2.0 3100 SP	3	3	MFD

GENERAL NOTES:  
 - DO NOT CUT OR MODIFY TRUSSES  
 - TRUSSES ARE SPACED 24" ON CENTER UNLESS OTHERWISE NOTED  
 - REFER TO THE INDIVIDUAL TRUSS DESIGN DRAWINGS FOR THE LOCATION OF LATERAL BRACING AND MULTIPLY CONNECTION REQUIREMENTS.  
 - PER ANSI TP1 1-2002 THE TRUSS ENGINEER IS RESPONSIBLE FOR TRUSSES TO TRUSS CONNECTIONS AND TRUSS PLY TO PLY CONNECTIONS. THIS TRUSS PLACEMENT PLAN RECOMMENDS TRUSSES TO BEARING CONNECTIONS AND TRUSSES TO BEAM CONNECTIONS WHICH SHALL BE REVIEWED BY THE BUILDING DESIGNER. IT IS THE RESPONSIBILITY OF THE BUILDING DESIGNER TO RESOLVE ALL ROOF FORCES ADEQUATELY TO THE FOUNDATION.

TOP LIVE LOAD	40.0 B/M <sup>2</sup>
TOP DEAD LOAD	10.0 B/M <sup>2</sup>
BOTTOM LIVE LOAD	
BOTTOM DEAD LOAD	5.0 B/M <sup>2</sup>

PROJECT: 1393 Walker RD Castio			
CUSTOMER: Southeastern Construction			
MODEL:			
QUOTE #:	PRINT DATE:	DRAWN BY:	SCALE:
2100825	10/16/2017	Rodney Evans	N.T.S

DEDICATED TO QUALITY AND EXCELLENCE  
 200 SAWYER ROAD  
 DUNWOODY, GA 30338  
 PHONE: 770-880-8800

COMPONENTS

Re: 2100825-2100825A  
1393 Walker RD Castio

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components - #2383.

Pages or sheets covered by this seal: 148491880 thru 148491893

My license renewal date for the state of North Carolina is December 31, 2021.

North Carolina COA: C-0844



October 25, 2021

Sevier, Scott

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



Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	148491880
2100825-2100825A	F1	FLOOR	35	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334

8 520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:56:45 2021 Page 1  
ID:ZcxtCb2dLGP4z35Y9kn9WHyQtsy-v7lx\_k01leP\_BVlojR\_3vAceJ0kxcWf?GW61u9yQrCG

0-1-8



0-1-8  
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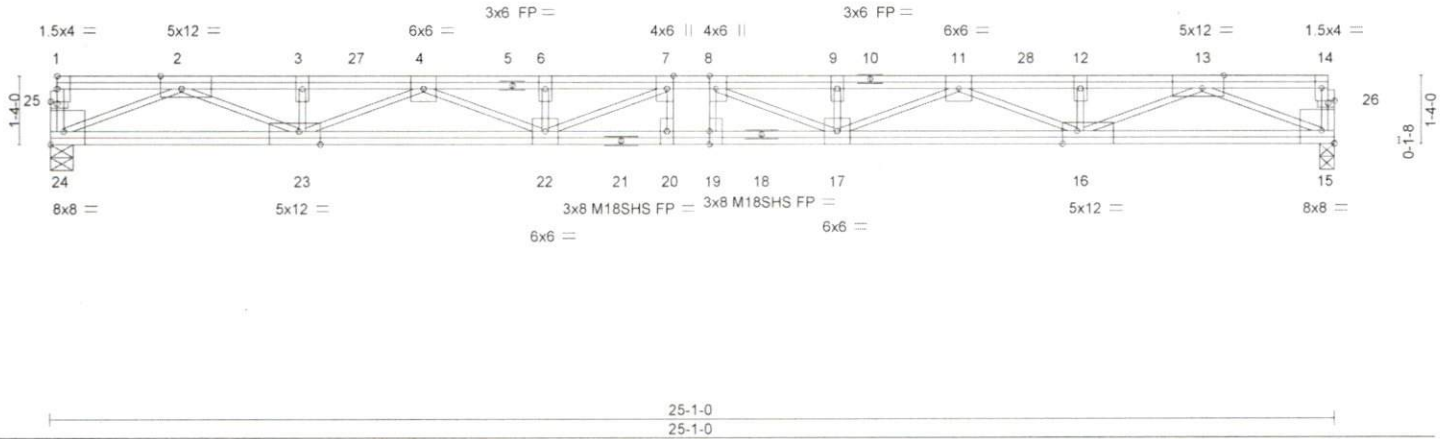


Plate Offsets (X,Y)-- [2:0-5-0,Edge], [7:0-3-0,Edge], [8:0-3-0,Edge], [13:0-5-0,Edge], [15:Edge,0-3-0], [16:0-3-8,Edge], [19:0-3-0,0-0-0], [23:0-5-0,Edge], [24:Edge,0-3-0], [25:0-1-8,0-0-8], [26:0-1-8,0-0-8]

<b>LOADING</b> (psf)	<b>SPACING-</b>	1-4-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 40.0	Plate Grip DOL	1.00	TC 0.22	Vert(LL)	-0.41	20	>717	480	MT20	197/144
TCDL 10.0	Lumber DOL	1.00	BC 0.38	Vert(CT)	-0.57	20	>521	360	M18SHS	244/190
BCLL 0.0	Rep Stress Incr	NO	WB 0.61	Horz(CT)	0.05	15	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S							
									Weight: 197 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP DSS(flat)  
BOT CHORD 2x4 SP DSS(flat)  
WEBS 2x4 SP No.3(flat) \*Except\*  
13-15,2-24,13-16,2-23,11-16,4-23,11-17,4-22,8-17,7-22: 2x4 SP No.2  
or 2x4 SPF 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.

**REACTIONS.** (size) 24=0-5-4, 15=0-3-8  
Max Grav 24=1206(LC 1), 15=1206(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-4553/0, 3-4=-4553/0, 4-6=-6451/0, 6-7=-6451/0, 7-8=-6715/0, 8-9=-6451/0,  
9-11=-6451/0, 11-12=-4553/0, 12-13=-4553/0  
BOT CHORD 23-24=0/2579, 22-23=0/5847, 20-22=0/6715, 19-20=0/6715, 17-19=0/6715, 16-17=0/5847,  
15-16=0/2579  
WEBS 13-15=-2780/0, 2-24=-2780/0, 13-16=0/2170, 2-23=0/2170, 12-16=-349/0, 3-23=-349/0,  
11-16=-1423/0, 4-23=-1423/0, 11-17=0/716, 4-22=0/716, 8-17=-737/321, 7-22=-737/321

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
  - As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - All plates are MT20 plates unless otherwise indicated.
  - All plates are 3x6 MT20 unless otherwise indicated.
  - Required 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.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 300 lb down at 6-0-0, and 300 lb down at 19-1-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 15-24=-7, 1-14=-67  
Concentrated Loads (lb)  
Vert: 27=-300(F) 28=-300(F)



October 25, 2021

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	148491881
2100825-2100825A	F1E	Floor Supported Gable	2	1	Job Reference (optional)	

84 Components (Dunn) Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:56:48 2021 Page 1  
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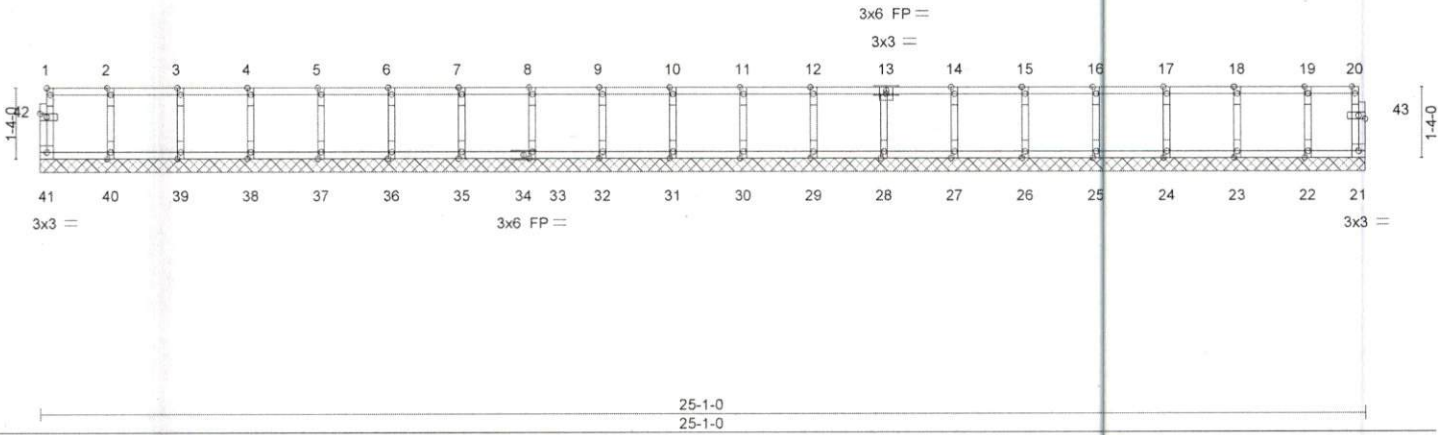


Plate Offsets (X,Y)-- [1:Edge,0-0-12], [42:0-1-8,0-0-12], [43:0-1-8,0-0-12]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.08	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.00	BC 0.02	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	21	n/a		
BCDL 5.0	Code	IRC2015/TPI2014	Matrix-R						
								Weight: 109 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	
OTHERS 2x4 SP No.3(flat)	

**REACTIONS.** All bearings 25-1-0.  
 (lb) - Max Grav All reactions 250 lb or less at joint(s) 41, 21, 40, 39, 38, 37, 36, 35, 33, 32, 31, 30, 29, 28, 27, 26, 25, 24, 23, 22

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-**
- As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - All plates are 1.5x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 1-4-0 oc.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 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.



Job	Truss	Truss Type	Qty	Ply	1933 Walker RD Castio	148491882
2100825-2100825A	F2	FLOOR	1	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:56:50 2021 Page 1  
ID: ZcxtCb2dLGP4z35Y9kn9WHyQtsy-F45q1R4AZA1HHGdIW\_aEbEJT11PJHjQkPnpoZMyQrCB

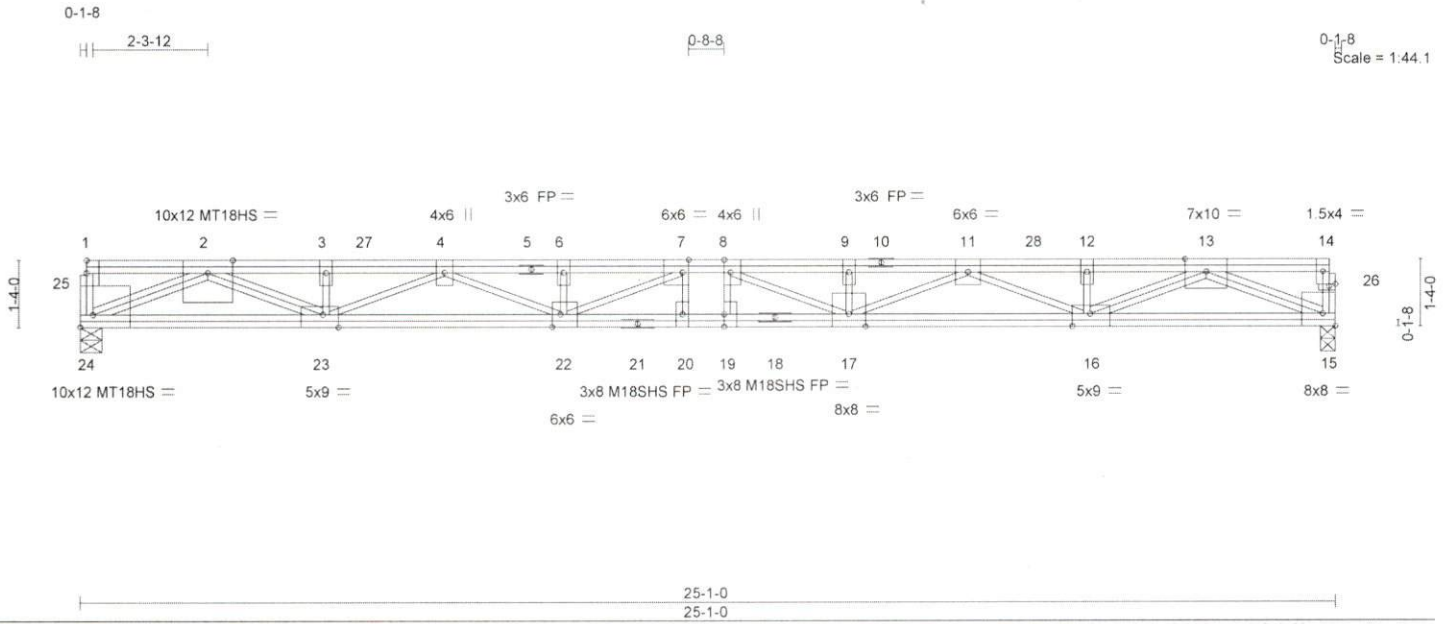


Plate Offsets (X,Y)-- [7:0-1-8,Edge], [8:0-3-0,Edge], [15:Edge,0-3-0], [16:0-4-4,Edge], [19:0-3-0,0-0-0], [22:0-2-0,Edge], [23:0-3-12,Edge], [24:Edge,0-3-0], [26:0-1-8,0-0-8]

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 0.35	Vert(LL)	-0.57 20-22	>522	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.56	Vert(CT)	-0.78 20-22	>380	360	M18SHS	244/190
BCLL 0.0	Rep Stress Incr	NO	WB 0.77	Horz(CT)	0.10 15	n/a	n/a	MT18HS	244/190
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S					Weight: 212 lb	FT = 20%F, 11%E

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

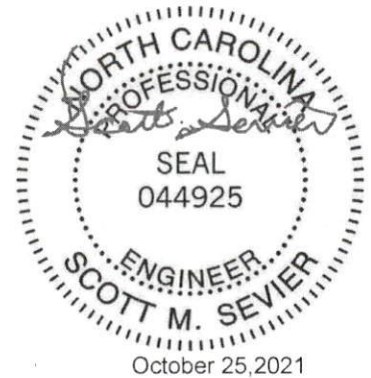
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 24=0-5-4, 15=0-3-8  
Max Grav 24=2922(LC 1), 15=1422(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-24=-416/0, 2-3=-8529/0, 3-4=-8617/0, 4-6=-9553/0, 6-7=-9553/0, 7-8=-9234/0, 8-9=-8391/0, 9-11=-8391/0, 11-12=-5539/0, 12-13=-5507/0  
BOT CHORD 23-24=0/5604, 22-23=0/9384, 20-22=0/9234, 19-20=0/9234, 17-19=0/9234, 16-17=0/7328, 15-16=0/2983  
WEBS 13-15=-3260/0, 2-24=-6106/0, 13-16=0/2793, 2-23=0/3238, 12-16=-376/0, 3-23=-1037/0, 11-16=-1954/0, 4-23=-838/0, 11-17=0/1223, 4-22=-290/591, 8-17=-1372/150, 7-22=-566/963, 8-19=-91/262

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
  - As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - All plates are MT20 plates unless otherwise indicated.
  - All plates are 3x6 MT20 unless otherwise indicated.
  - Required 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.

**LOAD CASE(S)** Standard  
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 15-24=-7, 1-27=-417, 14-27=-67  
Concentrated Loads (lb)  
Vert: 27=-300 28=-300





Job 2100825-2100825A	Truss F3	Truss Type FLOOR GIRDER	Qty 1	Ply 1	1393 Walker RD Castio Job Reference (optional)	148491883
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84 Components (Dunn), Dunn, NC - 28334,

8,520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:56:50 2021 Page 1  
ID: ZcxtCb2dLGP4z35Y9kn9WHyQtsy-F45q1R4AZA1HHGdiW\_aEbEJVk1RiHrkdPnpoZMyQrCB



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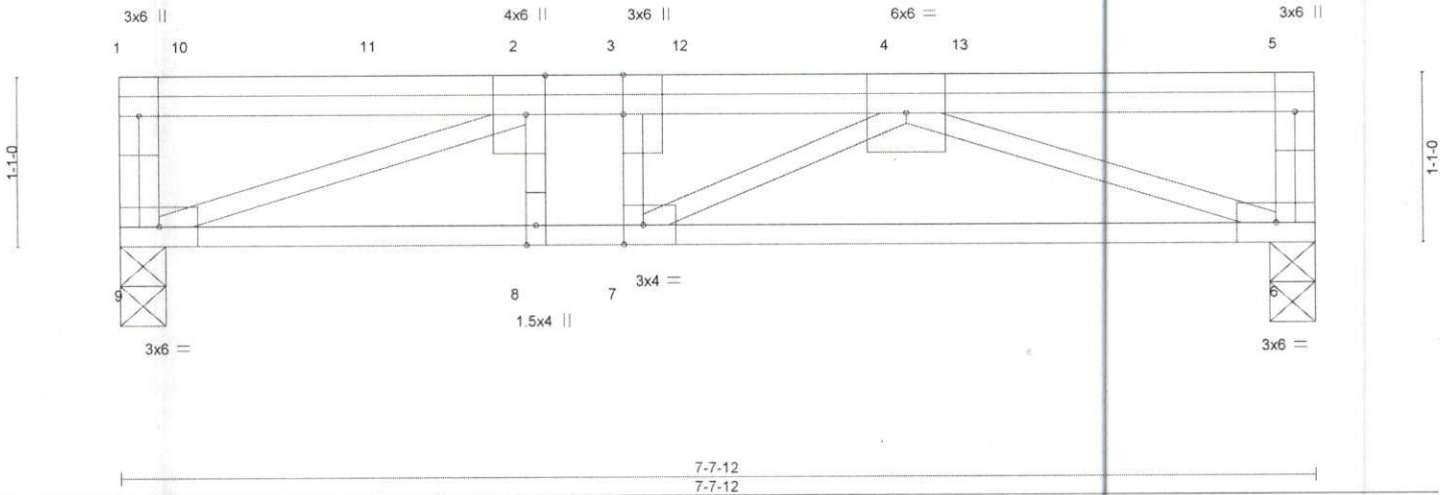


Plate Offsets (X,Y)-- [2:0-3-0,Edge], [3:0-3-0,0-0-0], [7:0-1-8,Edge]

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 0.24	Vert(LL)	-0.03	7	>999	480	MT20	197/144
TCDL 10.0	Lumber DOL	1.00	BC 0.41	Vert(CT)	-0.05	6-7	>999	360		
BCLL 0.0	Rep Stress Incr	NO	WB 0.31	Horz(CT)	0.01	6	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						Weight: 50 lb	FT = 20%F, 11%E

**LUMBER-**

TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(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) 9=0-3-8, 6=0-3-8  
 Max Grav 9=621(LC 1), 6=510(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-1109/0, 3-4=-1109/0  
 BOT CHORD 8-9=0/1109, 7-8=0/1109, 6-7=0/1103  
 WEBS 4-6=-1173/0, 2-9=-1176/0

**NOTES-**

- Unbalanced floor live loads have been considered for this design.
- As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 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.

**LOAD CASE(S)** Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
 Uniform Loads (plf)  
 Vert: 6-9=-7, 1-5=-67  
 Concentrated Loads (lb)  
 Vert: 10=-143 11=-122 12=-122 13=-200



October 25, 2021

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932



Job 2100825-2100825A	Truss F4	Truss Type FLOOR	Qty 1	Ply 1	1393 Walker RD Castio Job Reference (optional)	48491884
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:56:52 2021 Page 1  
ID ZcxtCb2dLGP4z35Y9kn9WHyQtsy-BTDbS76Q5oH?Wan8ePcinfOg8r3alaa1t5lueFyQrC9

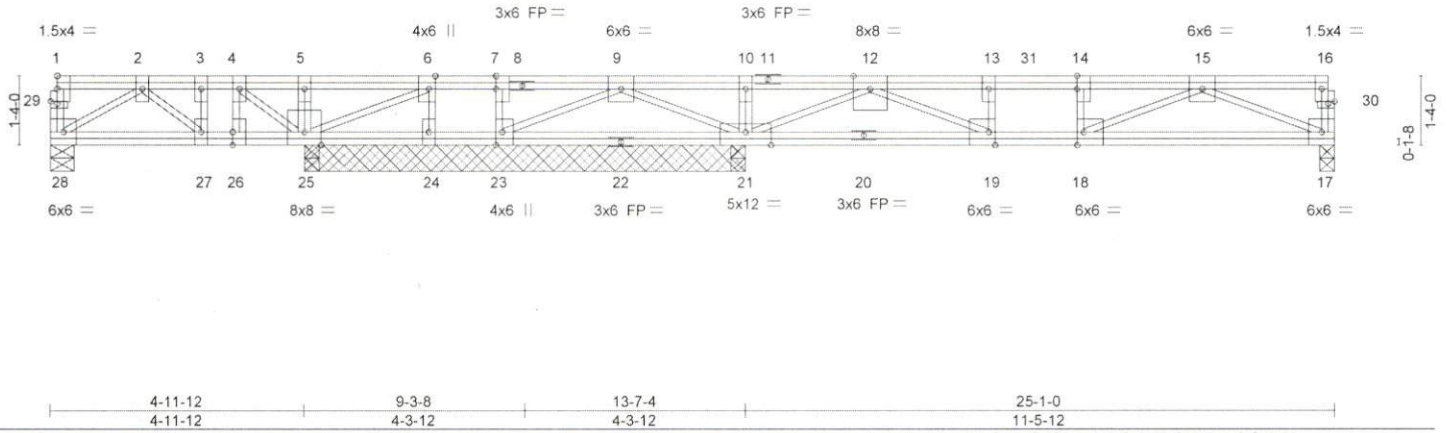


Plate Offsets (X,Y)-- [6:0-3-0,Edge], [7:0-3-0,0-0-0], [14:0-3-0,0-0-0], [18:0-1-8,Edge], [19:0-1-8,Edge], [21:0-6-0,Edge], [23:0-3-0,Edge], [26:0-3-0,0-0-0], [29:0-1-8,0-0-8], [30:0-1-8,0-0-8]

<b>LOADING</b> (psf)	<b>SPACING-</b>	1-4-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.95	Vert(LL)	-0.09 19-21	>999	480	MT20	197/144
TCDL 10.0	Lumber DOL	1.00	BC 0.58	Vert(CT)	-0.12 19-21	>999	360		
BCLL 0.0	Rep Stress Incr	NO	WB 0.98	Horz(CT)	0.01 17	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S					Weight: 198 lb	FT = 20%F, 11%E

**LUMBER-**

TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(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 6-0-0 oc bracing.

**REACTIONS.**

All bearings 8-7-8 except (jt=length) 28=0-5-8, 17=0-3-8.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) except 28=906(LC 3), 17=642(LC 4), 25=1624(LC 3), 25=1618(LC 1), 23=899(LC 3), 24=867(LC 7), 21=3597(LC 7), 21=3596(LC 1)

**FORCES.**

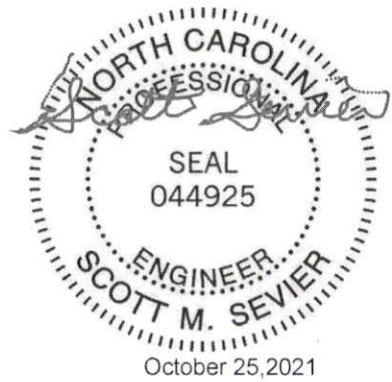
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-28=-274/0, 2-3=-677/0, 3-4=-677/0, 4-5=0/339, 5-6=0/371, 6-7=0/496, 7-9=0/496, 9-10=0/2262, 10-12=0/2262, 12-13=-2217/0, 13-14=-2217/0, 14-15=-2217/0  
BOT CHORD 27-28=0/939, 26-27=0/677, 25-26=0/677, 24-25=-496/0, 23-24=-496/0, 21-23=-440/0, 19-21=0/1177, 18-19=0/2217, 17-18=0/1306  
WEBS 5-25=-914/0, 10-21=-1120/0, 2-28=-1091/0, 4-25=-1278/0, 2-27=-366/0, 9-21=-2136/0, 9-23=-359/0, 6-24=-838/0, 7-23=-765/0, 15-17=-1407/0, 12-21=-3746/0, 15-18=0/1062, 12-19=0/1158, 13-19=-604/0, 14-18=-311/0

**NOTES-**

- Unbalanced floor live loads have been considered for this design.
- As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- All plates are 3x6 MT20 unless otherwise indicated.
- 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.
- CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 17-28=-7, 1-31=-417, 16-31=-67



Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	148491885
2100825-2100825A	F5	FLOOR	2	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8,520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:56:53 2021 Page 1  
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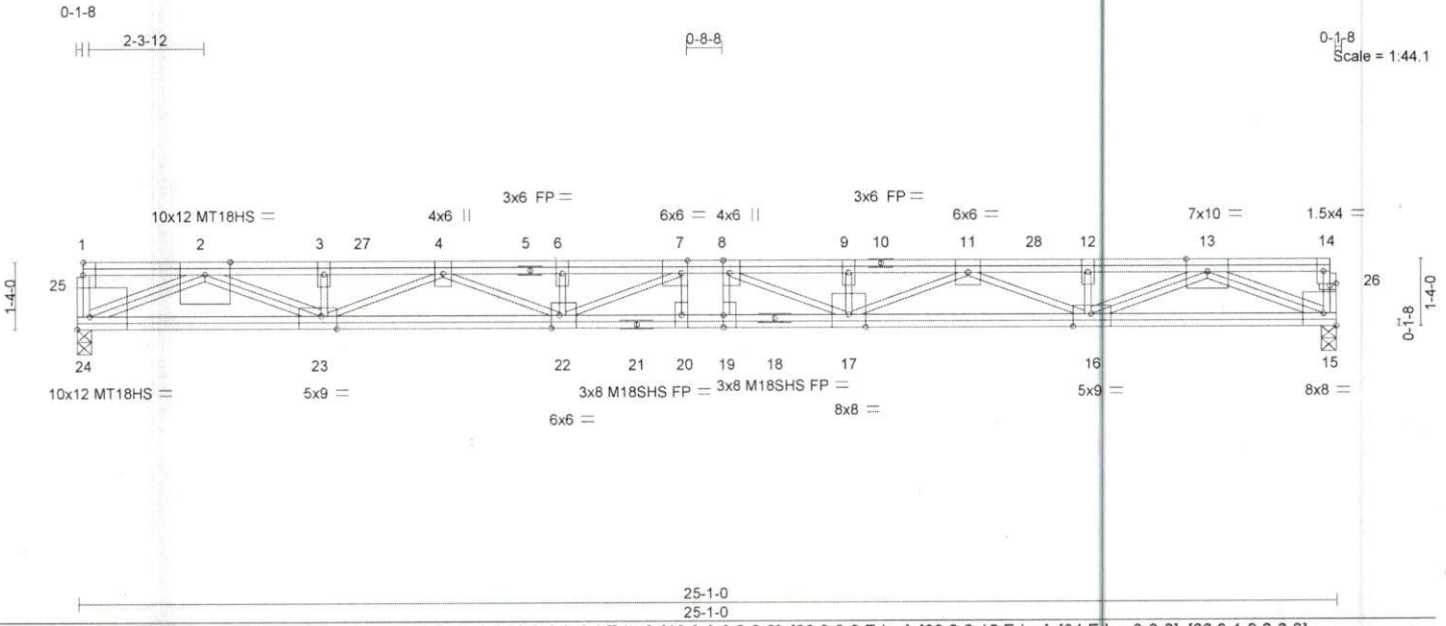


Plate Offsets (X,Y)-- [7:0-1-8,Edge], [8:0-3-0,Edge], [15:Edge,0-3-0], [16:0-4-4,Edge], [19:0-3-0,0-0-0], [22:0-2-0,Edge], [23:0-3-12,Edge], [24:Edge,0-3-0], [26:0-1-8,0-0-8]

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 0.35	Vert(LL)	-0.57 20-22	>522	480	MT20	244/190
BCDL 5.0	Lumber DOL	1.00	BC 0.56	Vert(CT)	-0.78 20-22	>380	360	M18SHS	244/190
	Rep Stress Incr	NO	WB 0.77	Horz(CT)	0.10 15	n/a	n/a	MT18HS	244/190
	Code IRC2015/TPI2014		Matrix-S					Weight: 212 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP DSS(flat)  
BOT CHORD 2x4 SP DSS(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) 24=0-3-8, 15=0-3-8  
Max Grav 24=2922(LC 1), 15=1422(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-24=-416/0, 2-3=-8529/0, 3-4=-8617/0, 4-6=-9553/0, 6-7=-9553/0, 7-8=-9234/0, 8-9=-8391/0, 9-11=-8391/0, 11-12=-5539/0, 12-13=-5507/0  
BOT CHORD 23-24=0/5604, 22-23=0/9384, 20-22=0/9234, 19-20=0/9234, 17-19=0/9234, 16-17=0/7328, 15-16=0/2983  
WEBS 13-15=-3260/0, 2-24=-6106/0, 13-16=0/2793, 2-23=0/3238, 12-16=-376/0, 3-23=-1037/0, 11-16=-1954/0, 4-23=-838/0, 11-17=0/1223, 4-22=-290/591, 8-17=-1372/150, 7-22=-566/963, 8-19=91/262

**NOTES-**  
1) Unbalanced floor live loads have been considered for this design.  
2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.  
3) All plates are MT20 plates unless otherwise indicated.  
4) All plates are 3x6 MT20 unless otherwise indicated.  
5) Required 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.

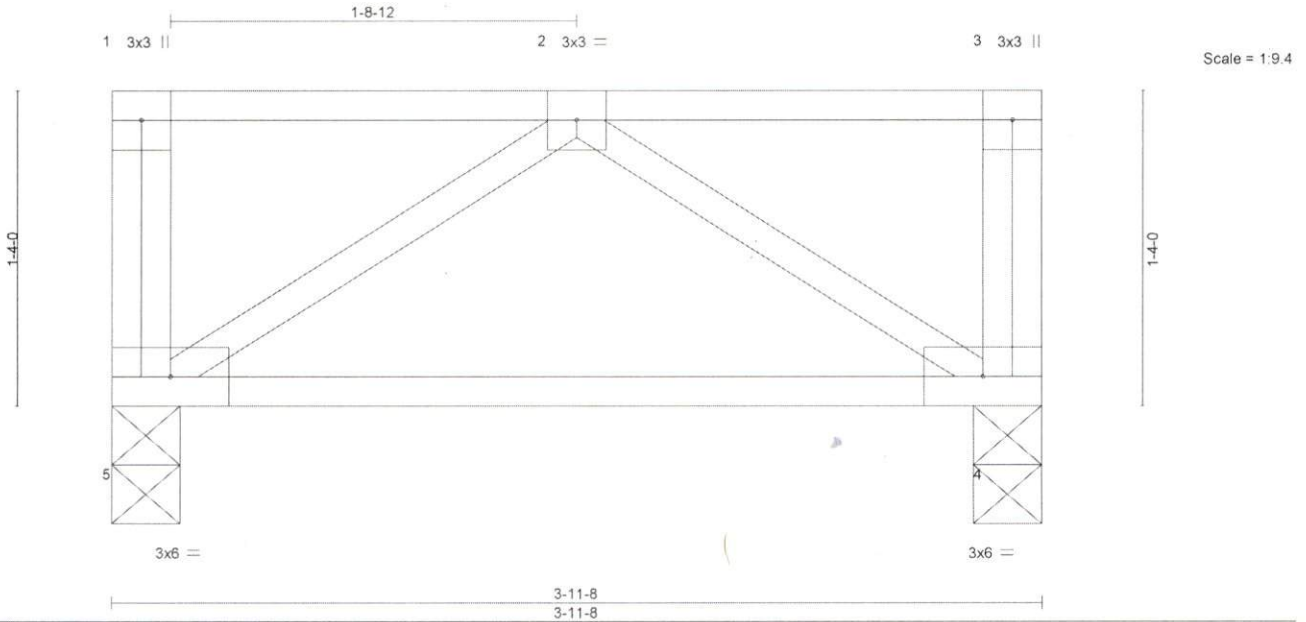
**LOAD CASE(S)** Standard  
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 15-24=-7, 1-27=-417, 14-27=-67  
Concentrated Loads (lb)  
Vert: 27=-300 28=-300





Job 2100825-2100825A	Truss F6	Truss Type Floor	Qty 2	Ply 1	1393 Walker RD Castio Job Reference (optional)	I48491886
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84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:56:54 2021 Page 1  
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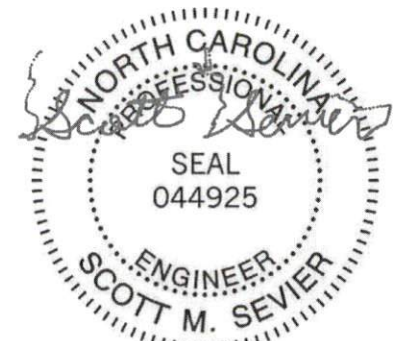
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.21	Vert(LL)	0.00	5	****	480	MT20	197/144
TCDL 10.0	Lumber DOL	1.00	BC 0.17	Vert(CT)	-0.03	4-5	>999	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	4	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-P						Weight: 24 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 3-11-8 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 5=0-3-8, 4=0-3-8  
Max Grav 5=204(LC 1), 4=204(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**  
1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.  
2) 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.



October 25, 2021

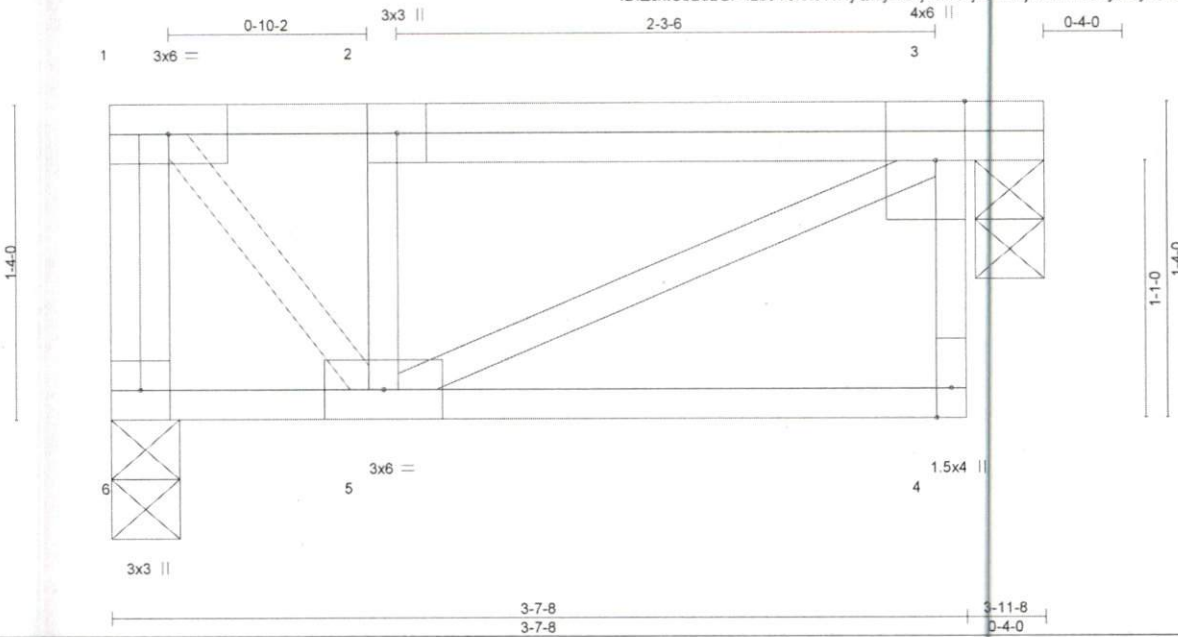


Job 2100825-2100825A	Truss F7	Truss Type Floor	Qty 3	Ply 1	1393 Walker RD Castio Job Reference (optional)	I48491887
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84 Components (Dunn),

Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:56:55 2021 Page 1  
ID:ZcxtCb2dLGP4z35Y9kn9WHyQtsy-c2vj498JOjfaN2WJXAPIH0My2Eiy95TZ3XZEayQrC6



Scale = 1:9.4

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.15	Vert(LL)	-0.00	5	>999	480	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.00	BC 0.04	Vert(CT)	-0.00	4-5	>999	360		
BCLL 0.0	Lumber DOL 1.00	WB 0.10	Horz(CT)	0.00	3	n/a	n/a		
BCDL 5.0	Rep Stress Incr YES	Matrix-P							
	Code IRC2015/TPI2014							Weight: 27 lb	FT = 20%F, 11%E

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-11-8 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 6=0-3-8, 3=0-3-8  
 Max Grav 6=189(LC 1), 3=189(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 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.
- Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- CAUTION, Do not erect truss backwards.



**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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 Edenton, NC 27932

Job 2100825-2100825A	Truss F8	Truss Type Floor	Qty 1	Ply 1	1393 Walker RD Castio Job Reference (optional)	I48491888
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:56:55 2021 Page 1  
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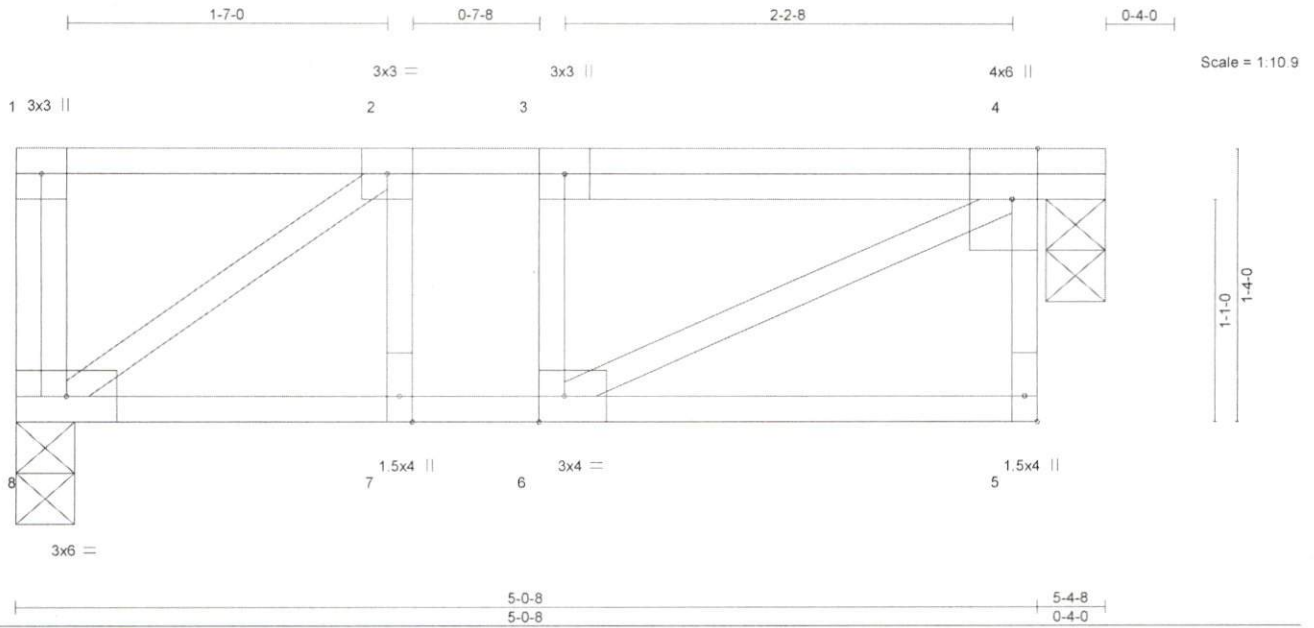


Plate Offsets (X,Y)-- [4:0-3-0,Edge], [5:Edge,0-0-12], [6:0-1-8,Edge]

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 0.18	Vert(LL)	-0.01	5-6	>999	480	MT20	197/144
TCDL 10.0	Lumber DOL	1.00	BC 0.13	Vert(CT)	-0.01	5-6	>999	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.15	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						Weight: 34 lb	FT = 20%F, 11%E

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-4-8 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 8=0-3-8, 4=0-3-8  
 Max Grav 8=267(LC 1), 4=267(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-277/0, 3-4=-279/0  
 BOT CHORD 7-8=0/277, 6-7=0/277  
 WEBS 4-6=0/308, 2-8=-335/0

**NOTES-**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 3) 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.
- 4) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- 5) CAUTION. Do not erect truss backwards.



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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castic	148491889
2100825-2100825A	F8E	Floor Supported Gable	1	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8 520 s Aug 27 2021 MITek Industries, Inc. Fri Oct 22 13:56:56 2021 Page 1  
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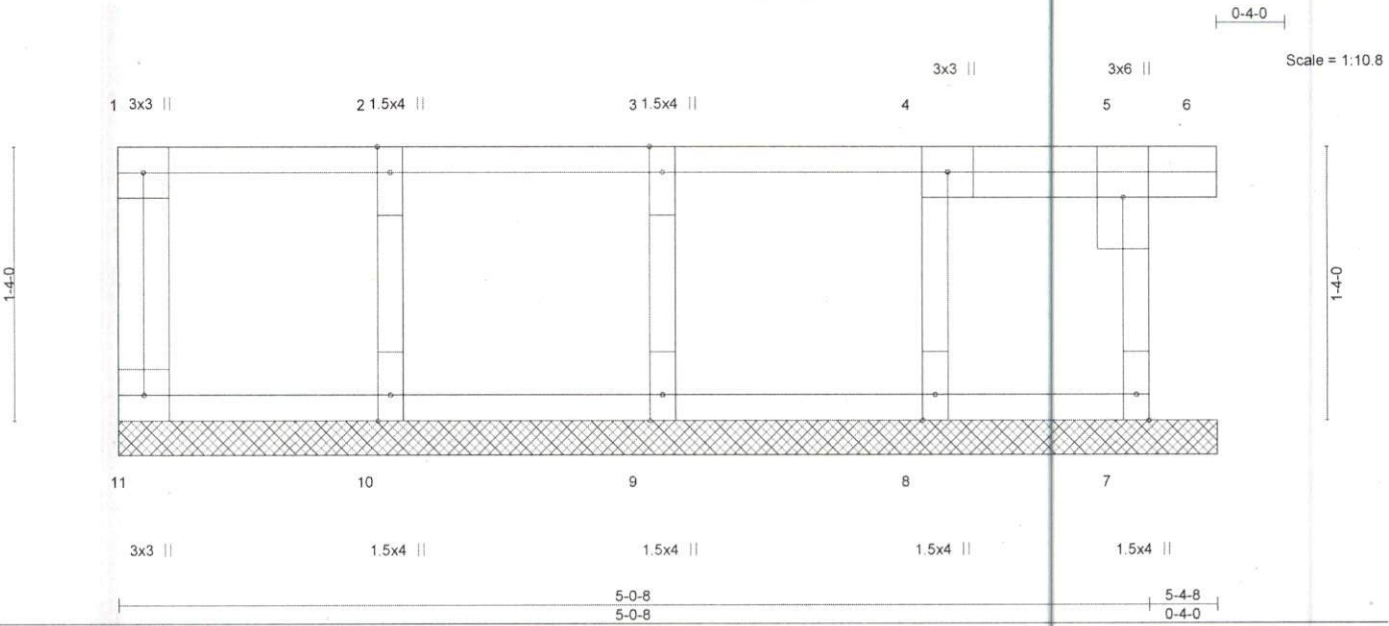


Plate Offsets (X,Y)-- [7:Edge,0-0-12]

<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 1.00	TC 0.08	Vert(LL) -0.00 5 n/r 90	MT20	197/144
TCDL 10.0	Lumber DOL 1.00	BC 0.02	Vert(CT) -0.00 5 n/r 90		
BCLL 0.0	Rep Stress Incr YES	WB 0.03	Horz(CT) 0.00 7 n/a n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-R		Weight: 27 lb	FT = 20%F, 11%E

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-4-8 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

All bearings 5-4-8.  
 (lb) - Max Grav All reactions 250 lb or less at joint(s) 11, 7, 10, 9, 8

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 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.
- CAUTION, Do not erect truss backwards.



October 25, 2021



Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	148491890
2100825-2100825A	F9	Floor	5	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:56:56 2021 Page 1  
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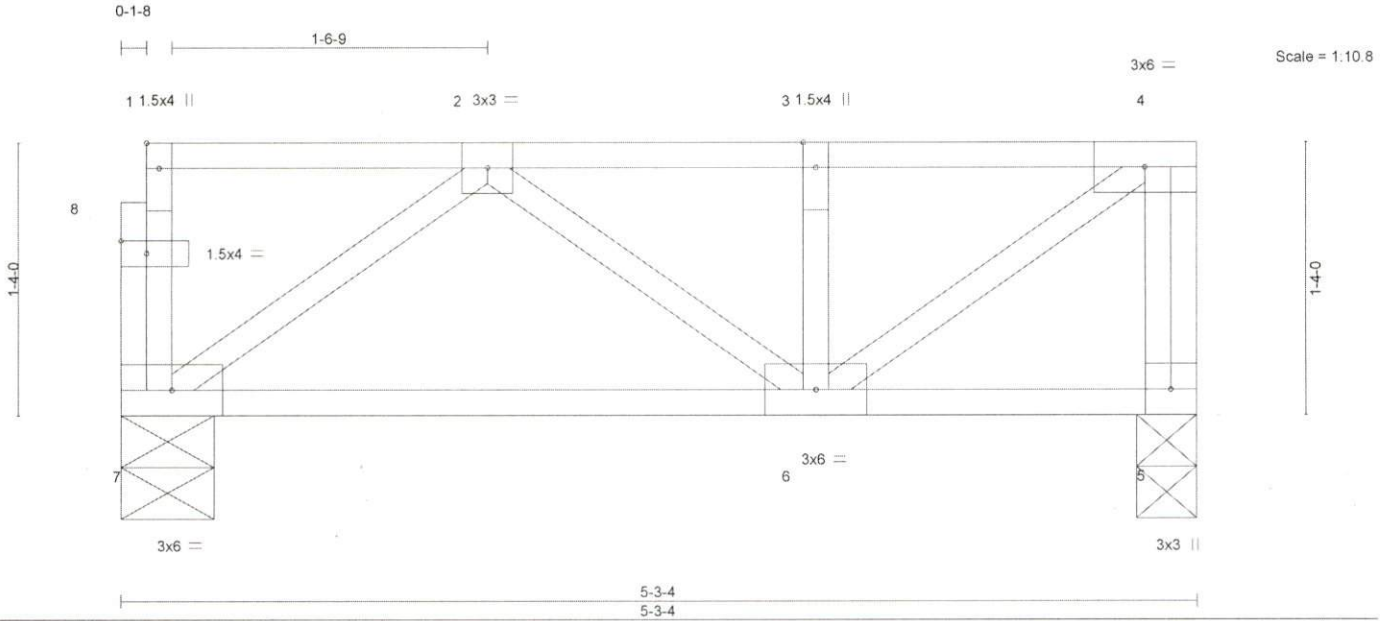


Plate Offsets (X,Y)-- [1:Edge,0-0-12], [8:0-1-8,0-0-12]

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 0.10	Vert(LL)	-0.00	6	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.00	BC 0.09	Vert(CT)	-0.01	6-7	>999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.00	5	n/a		
BCDL 5.0	Code	IRC2015/TPI2014	Matrix-P						
								Weight: 32 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 5-3-4 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

REACTIONS. (size) 5=0-3-8, 7=0-5-8  
Max Grav 5=184(LC 1), 7=180(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-
- 1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 2) 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.
  - 3) CAUTION, Do not erect truss backwards.



Job 2100825-2100825A	Truss F10	Truss Type Floor	Qty 1	Ply 1	1393 Walker RD Castio	I48491891
84 Components (Dunn), Dunn, NC - 28334,					Job Reference (optional)	

8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:56:46 2021 Page 1  
 ID: ZcxtCb2dLGP4z35Y9kn9WHyQtsy-NJsJB41gWyXrofK\_H8VIRO9p7Q4nL2M8UAraQbyQrCF

0-1-8  
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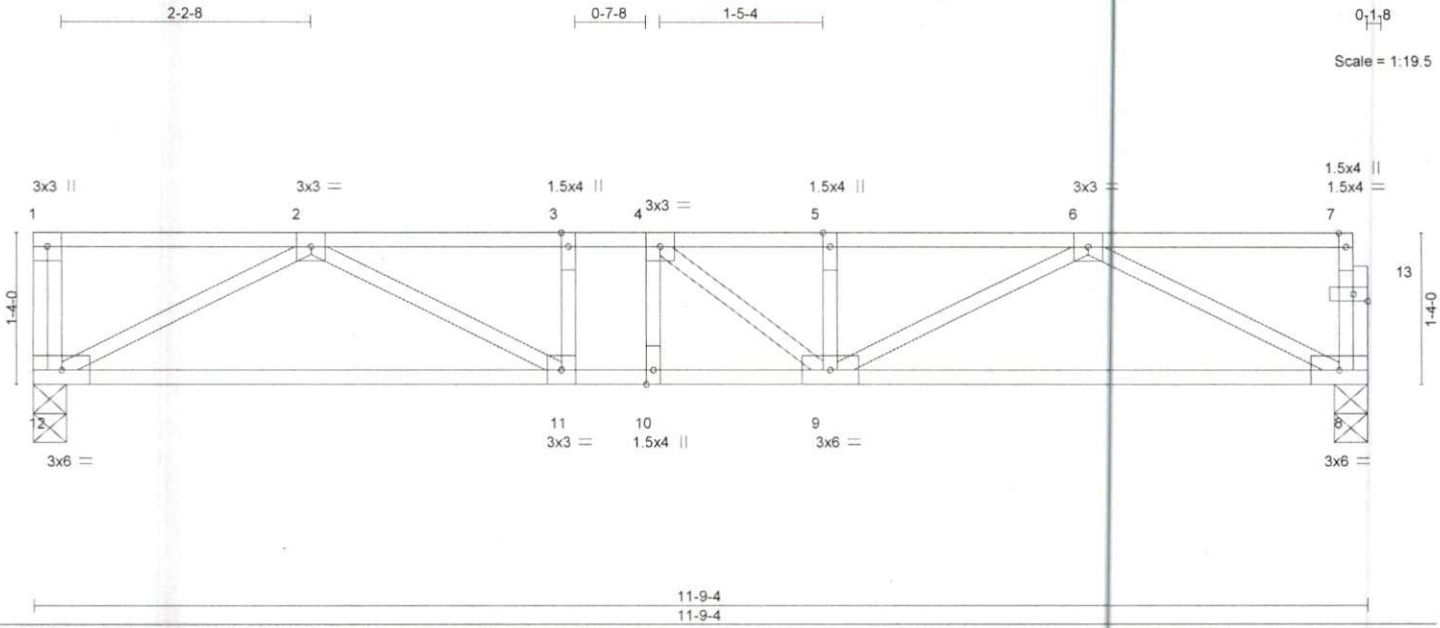


Plate Offsets (X,Y)-- [13-0-1-8, 0-0-12]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	1-4-0	TC 0.22	Vert(LL)	-0.04	9-10	>999	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.00	BC 0.35	Vert(CT)	-0.06	11-12	>999		
BCLL 0.0	Lumber DOL 1.00	WB 0.20	Horz(CT)	0.01	8	n/a		
BCDL 5.0	Rep Stress Incr YES	Matrix-S						
	Code IRC2015/TPI2014						Weight: 63 lb	FT = 20%F, 11%E

**LUMBER-**  
 TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(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) 12=0-3-8, 8=0-3-8  
 Max Grav 12=422(LC 1), 8=418(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-992/0, 3-4=-992/0, 4-5=-991/0, 5-6=-991/0  
 BOT CHORD 11-12=0/672, 10-11=0/992, 9-10=0/992, 8-9=0/670  
 WEBS 6-8=-751/0, 2-12=-757/0, 6-9=0/364, 2-11=0/374

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
  - As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 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.
  - CAUTION, Do not erect truss backwards.



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 Edenton, NC 27932

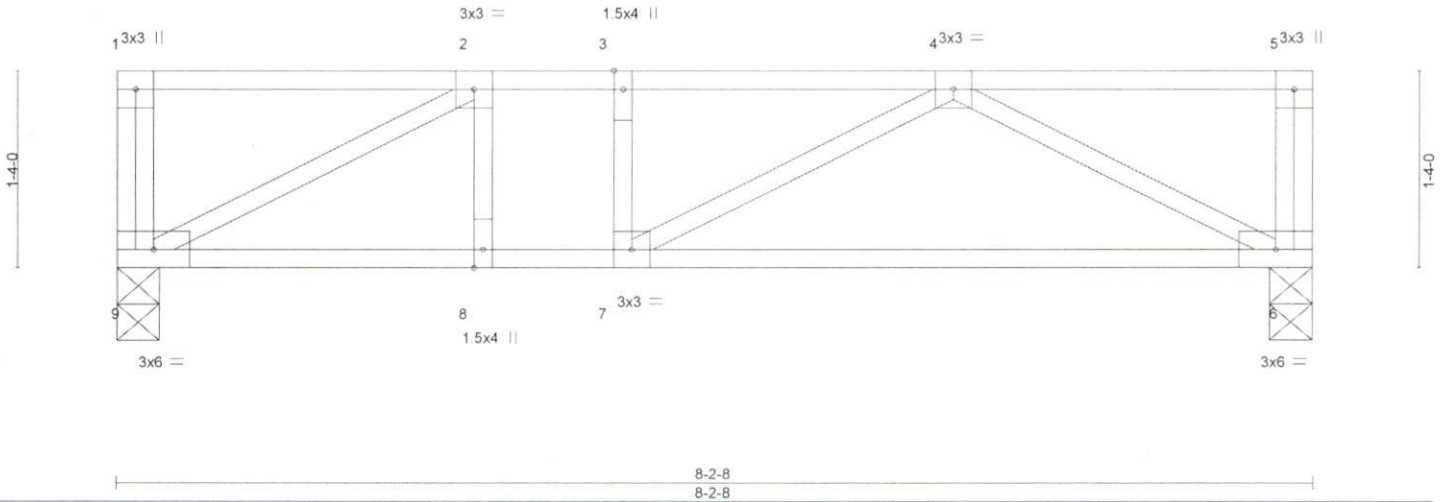
Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	I48491892
2100825-2100825A	F11	Floor	1	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334.

8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:56:46 2021 Page 1  
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Scale = 1.15 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 0.29	Vert(LL)	-0.04	6-7	>999	480	MT20	197/144
TCDL 10.0	Lumber DOL	1.00	BC 0.30	Vert(CT)	-0.08	6-7	>999	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.01	6	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						Weight: 45 lb	FT = 20%F, 11%E

**LUMBER-**

TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)  
 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(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) 9=0-3-8, 6=0-3-8  
 Max Grav 9=292(LC 1), 6=292(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-461/0, 3-4=-461/0  
 BOT CHORD 8-9=0/461, 7-8=0/461, 6-7=0/421  
 WEBS 4-6=-474/0, 2-9=-517/0

**NOTES-**

- Unbalanced floor live loads have been considered for this design.
- As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 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.



October 25, 2021

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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



Job 2100825-2100825A	Truss F12	Truss Type Floor Supported Gable	Qty 1	Ply 1	1393 Walker RD Castio Job Reference (optional)	I48491893
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:56:47 2021 Page 1  
ID:ZcxtCb2dLGP4z35Y9kn9WHyQtsy-rVQiiPQ2IHFFQpvArs0X\_bh01qVB4YDljqb8y1yQrCE

0-1-8

Scale = 1:24.6

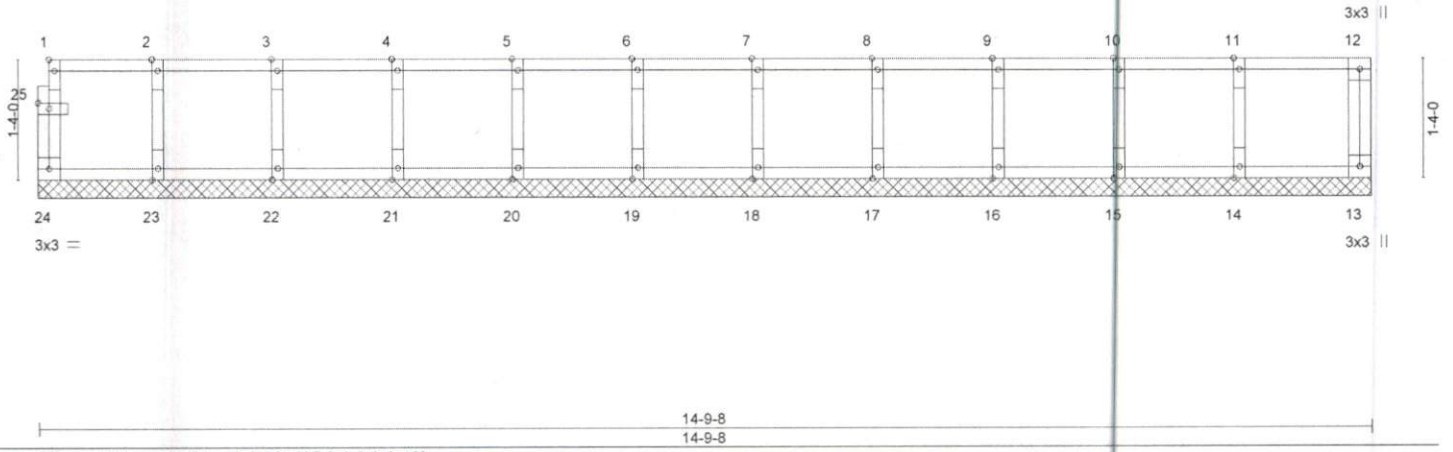


Plate Offsets (X, Y)-- [1:Edge,0-0-12], [25:0-1-8,0-0-12]

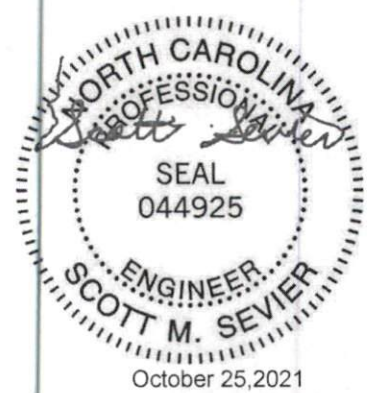
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.08	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	13	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-R						
								Weight: 66 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	
OTHERS 2x4 SP No.3(flat)	

REACTIONS. All bearings 14-9-8.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 24, 13, 23, 22, 21, 20, 19, 18, 17, 16, 15, 14

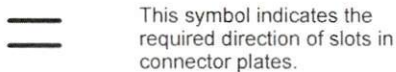
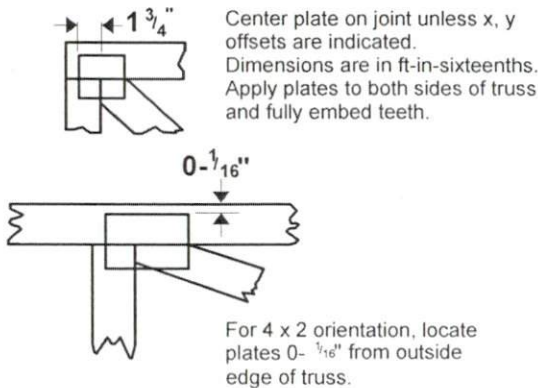
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-
- 1) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 2) All plates are 1.5x4 MT20 unless otherwise indicated.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 5) Gable studs spaced at 1-4-0 oc.
  - 6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 7) CAUTION. Do not erect truss backwards.



# Symbols

## PLATE LOCATION AND ORIENTATION



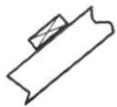
\* Plate location details available in MiTek 20/20 software or upon request.

## PLATE SIZE

4 x 4

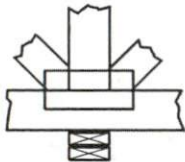
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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

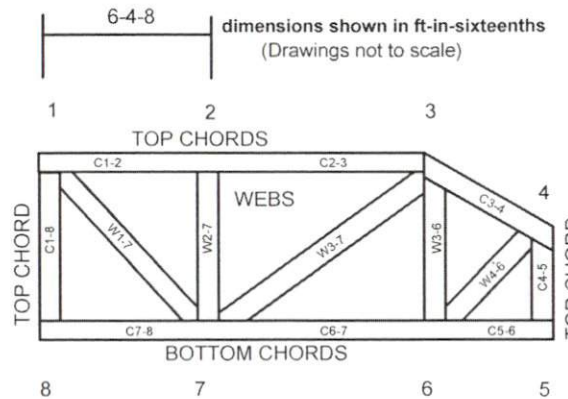


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

- ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
- DSB-89: Design Standard for Bracing.
- BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & 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-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

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MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020



# 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/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 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/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

**Trenco**  
818 Soundside Rd  
Edenton, NC 27932

Re: 2100826-2100826A  
1393 Walker RD Castio

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components - #2383.

Pages or sheets covered by this seal: 148491789 thru 148491815

My license renewal date for the state of North Carolina is December 31, 2021.

North Carolina COA: C-0844



October 25, 2021

Sevier, Scott

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



Job 2100826-2100826A	Truss A	Truss Type ROOF TRUSS	Qty 1	Ply 1	1393 Walker RD Castio Job Reference (optional)	I48491789
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84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc Fri Oct 22 13:50:52 2021 Page 1  
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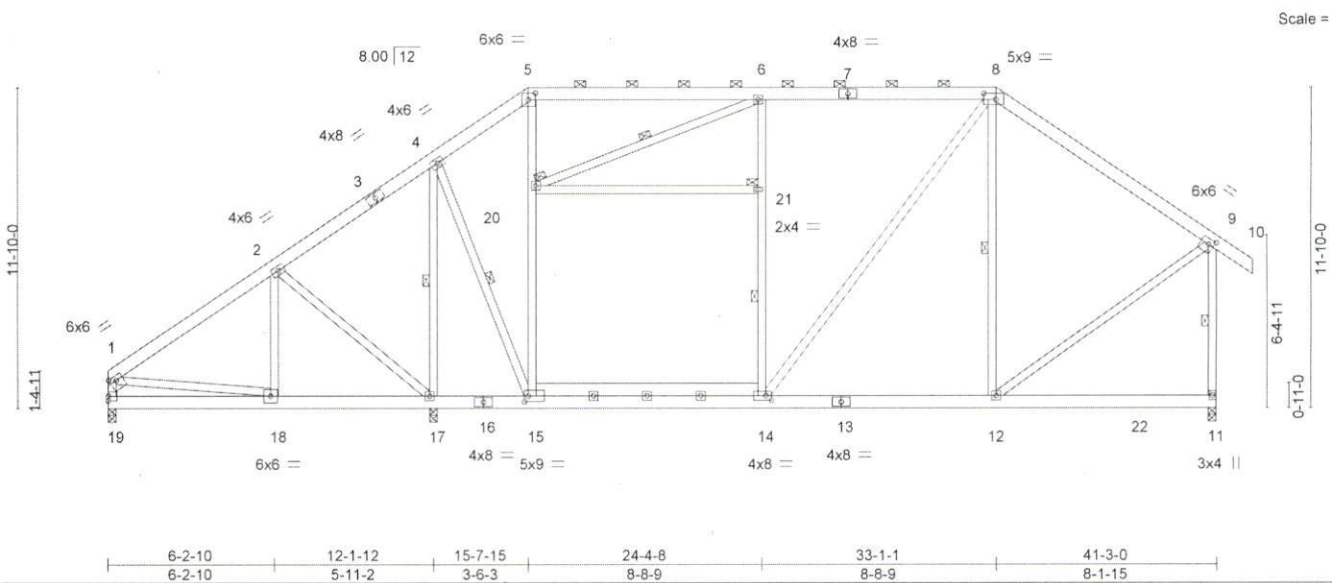


Plate Offsets (X,Y)-- [1:0-2-12,0-2-0], [5:0-3-4,0-3-0], [8:0-5-8,0-2-12], [9:0-2-8,0-2-8], [14:0-2-8,0-2-0], [15:0-1-12,0-2-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.61	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.96	Vert(LL) -0.19 12-14 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.79	Vert(CT) -0.37 12-14 >929 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.04 11 n/a n/a		
	Code IRC2015/TPI2014		Attic -0.09 14-15 1161 360	Weight: 399 lb	FT = 20%

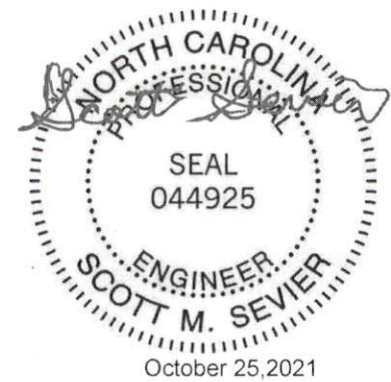
**LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 8-14: 2x4 SP No.2 or 2x4 SPF No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-8-14 oc purlins, except end verticals, and 2-0-0 oc purlins (4-10-1 max.); 5-8.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
 WEBS 1 Row at midpt 4-17, 4-15, 14-21, 8-12, 9-11, 6-20  
 JOINTS 1 Brace at Jt(s): 20, 21

**REACTIONS.** (size) 19=0-3-8, 17=0-3-8, 11=0-3-8  
 Max Horz 19=366(LC 11)  
 Max Uplift 19=28(LC 8), 17=206(LC 27), 11=44(LC 8)  
 Max Grav 19=1718(LC 2), 17=574(LC 10), 11=1973(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-2310/230, 2-4=-2169/298, 4-5=-2077/312, 5-6=-1720/292, 6-8=-1735/297,  
 8-9=-1481/268, 1-19=-1650/191, 9-11=-1856/269  
 BOT CHORD 18-19=-322/456, 17-18=-270/1856, 15-17=-141/1731, 14-15=-82/1725, 12-14=-79/1136  
 WEBS 2-17=-343/222, 4-17=-329/89, 15-20=-106/740, 5-20=-13/798, 14-21=-640/253,  
 6-21=-527/278, 8-14=-56/1014, 8-12=-513/130, 1-18=-136/1683, 9-12=-34/1398

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are 4x4 MT20 unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Ceiling dead load (5.0 psf) on member(s). 20-21; Wall dead load (5.0psf) on member(s).15-20, 14-21
  - Bottom chord live load (20.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 14-15
  - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 19, 17, and 11. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



October 25, 2021

Job 2100826-2100826A	Truss A1	Truss Type ROOF TRUSS	Qty 1	Ply 1	1393 Walker RD Castio	48491790
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B4 Components (Dunn), Dunn, NC - 28334,

8 520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:50:54 2021 Page 1  
ID: ZcxtCb2dLGP4z35Y9kn9WHyQtsy-VFrxFpqrj53nduSyPs5PZZkXomtj\_KYPay37yQrHI

1-4-0	6-2-10	12-1-12	15-7-15	24-4-8	33-1-1	41-3-0	42-7-0
1-4-0	6-2-10	5-11-2	3-6-3	8-8-9	8-8-9	8-1-15	1-4-0

Scale = 1:83.1

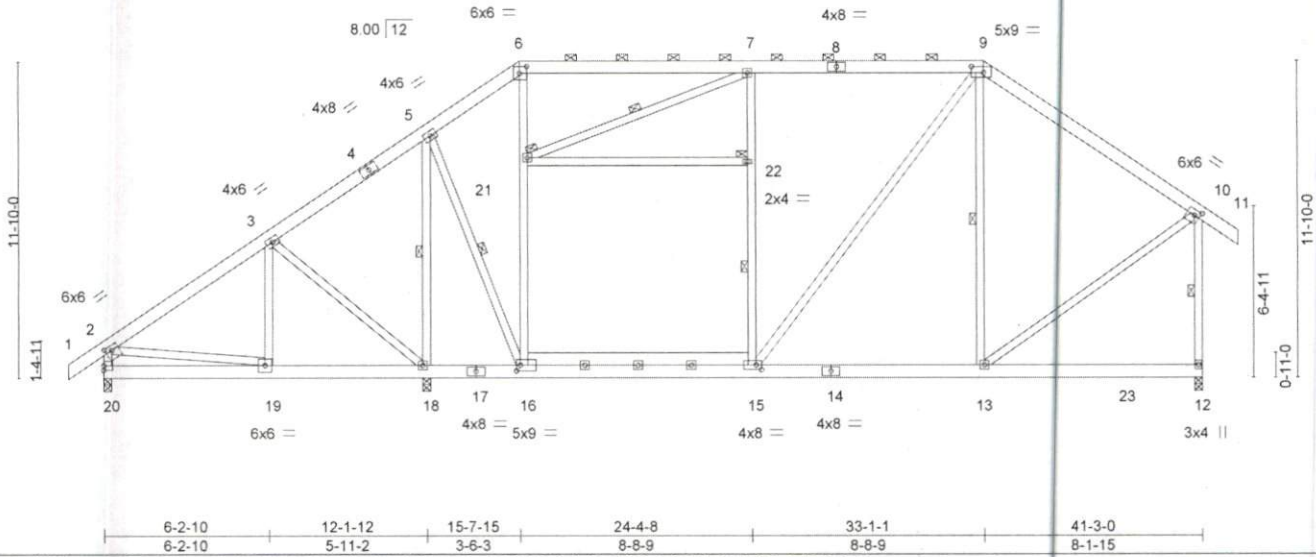


Plate Offsets (X, Y)-- [2:0-2-12,0-2-0], [6:0-3-4,0-3-0], [9:0-5-8,0-2-12], [10:0-2-8,0-2-8], [15:0-2-8,0-2-0], [16:0-1-12,0-2-8]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.61	Vert(LL)	-0.19 13-15	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.96	Vert(CT)	-0.37 13-15	>930	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.79	Horz(CT)	0.04 12	n/a	n/a		
BCDL 10.0	Code	IRC2015/TP12014	Matrix-MS	Attic	-0.09 15-16	1162	360		
								Weight: 403 lb	FT = 20%

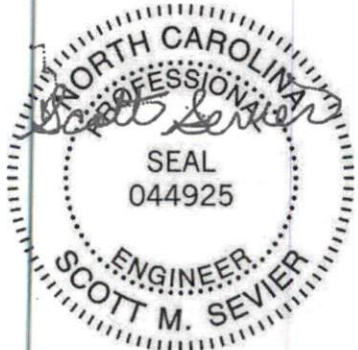
**LUMBER-**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
9-15: 2x4 SP No.2 or 2x4 SPF No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-8-14 oc purlins, except end verticals, and 2-0-0 oc purlins (4-10-1 max.): 6-9.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 2-2-0 oc bracing: 16-18.  
WEBS 1 Row at midpt 5-18, 5-16, 15-22, 9-13, 10-12, 7-21  
JOINTS 1 Brace at Jt(s): 21, 22

**REACTIONS.** (size) 20=0-3-8, 18=0-3-8, 12=0-3-8  
Max Horz 20=382(LC 11)  
Max Uplift 20=-25(LC 8), 18=-209(LC 27), 12=-44(LC 8)  
Max Grav 20=1797(LC 2), 18=571(LC 10), 12=1973(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2309/232, 3-5=-2168/299, 5-6=-2079/313, 6-7=-1720/293, 7-9=-1736/297, 9-10=-1481/269, 2-20=-1730/259, 10-12=-1856/270  
BOT CHORD 19-20=-333/486, 18-19=-269/1848, 16-18=-142/1732, 15-16=-82/1725, 13-15=-79/1136  
WEBS 3-18=-333/218, 5-18=-330/88, 16-21=-108/741, 6-21=-15/800, 15-22=-640/253, 7-22=-527/278, 9-15=-56/1014, 9-13=-514/130, 2-19=-133/1658, 10-13=-34/1398

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCCL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) All plates are 4x4 MT20 unless otherwise indicated.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCCL = 10.0psf.
  - 7) Ceiling dead load (5.0 psf) on member(s). 21-22; Wall dead load (5.0psf) on member(s).16-21, 15-22
  - 8) Bottom chord live load (20.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 15-16
  - 9) One H2 5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 20, 18, and 12. This connection is for uplift only and does not consider lateral forces.
  - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 11) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



October 25, 2021

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE Mil-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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



Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	148491791
2100826-2100826A	A2	ROOF TRUSS	2	1		

B4 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MITek Industries, Inc. Fri Oct 22 13:50:55 2021 Page 1

ID: ZcxtCb2dLGP4z35Y9kn9WHyQtsy-zROJS9qNC1tygxC50fw5ed6IXx7ScB5Un3KVbRyQrHk

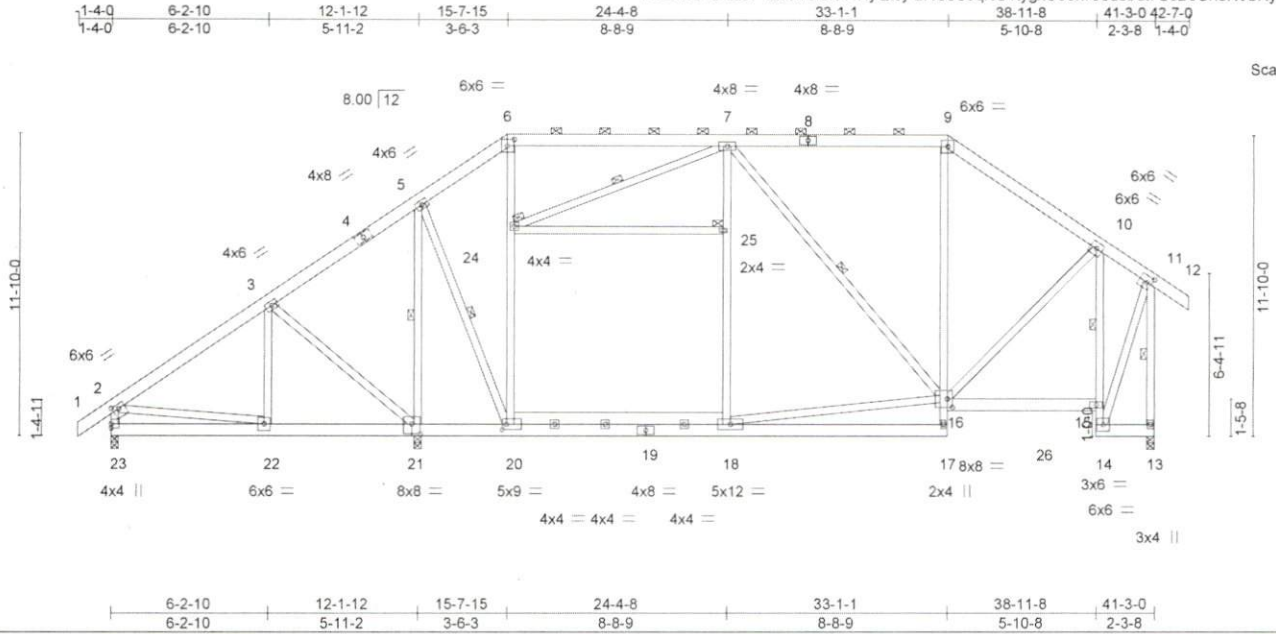


Plate Offsets (X, Y)--	[2:0-2-12,0-2-0], [6:0-3-4,0-3-0], [11:0-2-3,0-3-0], [16:0-2-8,0-4-0], [20:0-2-0,0-2-8], [21:0-4-0,0-4-8]
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LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.55	Vert(LL)	-0.17 17-18	>999	240	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 1.00	Vert(CT)	-0.40 17-18	>874	180		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.73	Horz(CT)	0.11 13	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Attic	-0.08 18-20	1257	360		
	Code IRC2015/TPI2014						Weight: 431 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-10-11 oc purlins, except end verticals, and 2-0-0 oc purlins (5-3-0 max.); 6-9,
BOT CHORD 2x6 SP No.2 *Except* 10-14: 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 20-21 1-7-8 oc bracing: 14-15.
WEBS 2x4 SP No.3 *Except* 7-16: 2x4 SP No.2 or 2x4 SPF No.2	WEBS 1 Row at midpt 10-15 1 Row at midpt 5-21, 5-20, 7-16, 11-13, 7-24
	JOINTS 1 Brace at Jt(s): 24, 25

**REACTIONS.** (size) 23=0-3-8, 13=0-3-8, 21=0-3-8  
 Max Horz 23=382(LC 11)  
 Max Uplift 23=-37(LC 8), 13=-46(LC 8), 21=-203(LC 12)  
 Max Grav 23=1750(LC 1), 13=1826(LC 1), 21=580(LC 10)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2195/241, 3-5=-1999/314, 5-6=-1903/319, 6-7=-1570/297, 7-9=-1106/292,  
 9-10=-1401/285, 10-11=-629/202, 2-23=-1682/265, 11-13=-1901/246  
 BOT CHORD 22-23=-333/486, 21-22=-267/1741, 20-21=-141/1582, 18-20=-80/1577, 15-16=-95/497,  
 14-15=-1268/142, 10-15=-1232/186  
 WEBS 3-21=-333/218, 5-21=-417/94, 20-24=-115/648, 6-24=-22/707, 18-25=-60/279,  
 7-25=0/322, 16-18=-85/1560, 7-16=-810/24, 10-16=-59/886, 2-22=-147/1548,  
 11-14=-137/1458, 9-16=0/369

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf, BCDL=6.0psf, h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed, C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Ceiling dead load (5.0 psf) on member(s), 24-25; Wall dead load (5.0psf) on member(s), 20-24, 18-25
  - Bottom chord live load (20.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 18-20
  - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at Jt(s) 23, 13, and 21. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



<p><b>WARNING</b> - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 Rev. 5/19/2020 BEFORE USE</p> <p>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, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>AMI tek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	I48491792
2100826-2100826A	A3	ROOF TRUSS	2	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334, 8 520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:50:57 2021 Page 1  
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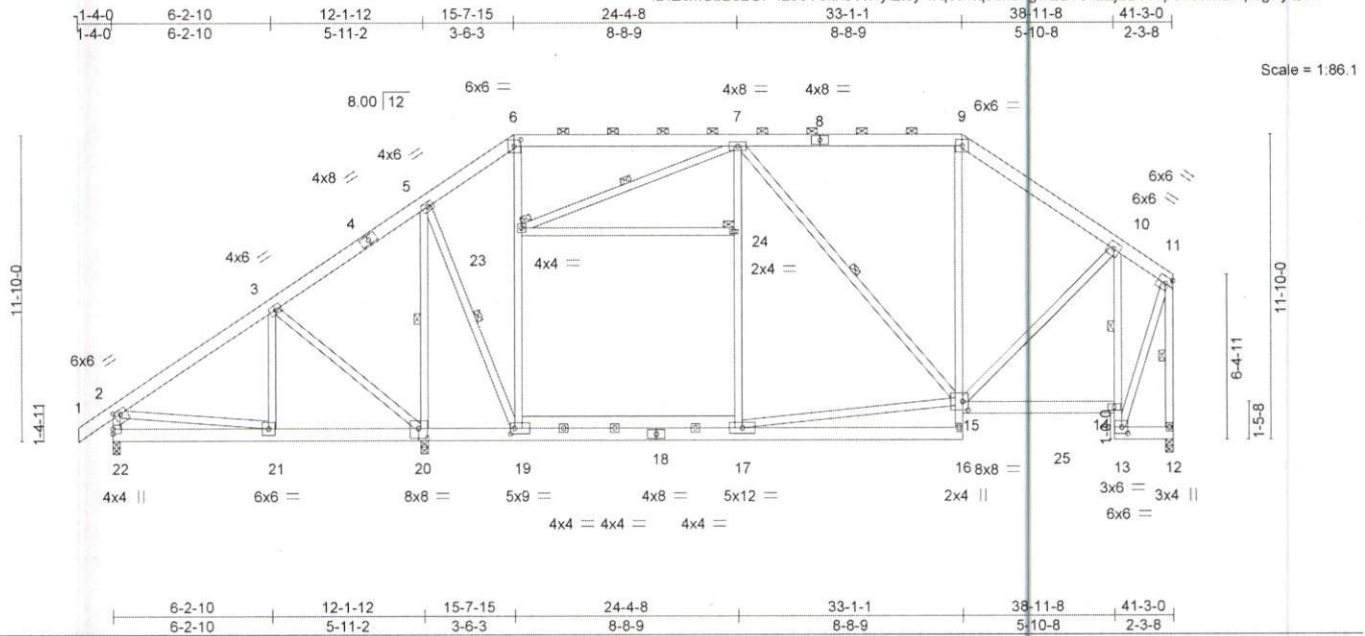


Plate Offsets (X,Y)-- [2:0-2-12,0-2-0], [6:0-3-4,0-3-0], [13:0-2-12,0-3-0], [15:0-2-8,0-4-0], [19:0-2-0,0-2-8], [20:0-4-0,0-4-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.55	Vert(LL)	-0.17 16-17	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.98	Vert(CT)	-0.40 16-17	>876	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.74	Horz(CT)	0.11 12	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Attic	-0.08 17-19	1256	360	Weight: 428 lb	FT = 20%

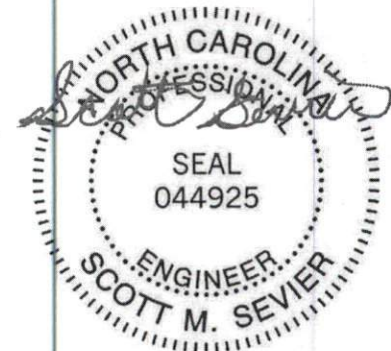
**LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP No.2 \*Except\*  
 10-13: 2x4 SP No.2 or 2x4 SPF No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 7-15: 2x4 SP No.2 or 2x4 SPF No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-10-9 oc purlins, except end verticals, and 2-0-0 oc purlins (5-2-13 max.); 6-9.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
 2-2-0 oc bracing: 19-20  
 4-3-12 oc bracing: 13-14.  
 1 Row at midpt 10-14  
 WEBS 1 Row at midpt 5-20, 5-19, 7-15, 11-12, 7-23  
 JOINTS 1 Brace at Jt(s): 23, 24

**REACTIONS** (size) 22=0-3-8, 12=0-3-8, 20=0-3-8  
 Max Horz 22=374(LC 9)  
 Max Uplift 22=-31(LC 8), 12=-40(LC 8), 20=-209(LC 12)  
 Max Grav 22=1755(LC 1), 12=1737(LC 1), 20=573(LC 10)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2202/224, 3-5=-2008/304, 5-6=-1909/304, 6-7=-1575/285, 7-9=-1112/282, 9-10=-1430/273, 10-11=-622/169, 2-22=-1687/254, 11-12=-1814/190  
 BOT CHORD 21-22=-342/463, 20-21=-298/1747, 19-20=-170/1589, 17-19=-115/1582, 14-15=-118/509, 13-14=-1297/201, 10-14=-1260/246  
 WEBS 3-20=-331/219, 5-20=-410/98, 19-23=-108/651, 6-23=-14/710, 17-24=-61/278, 7-24=0/321, 15-17=-119/1565, 7-15=-810/23, 10-15=-64/878, 2-21=-141/1554, 11-13=-204/1491, 9-15=0/372

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Ceiling dead load (5.0 psf) on member(s). 23-24; Wall dead load (5.0psf) on member(s).19-23, 17-24
  - Bottom chord live load (20.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 17-19
  - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at J(s) 22, 12, and 20. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

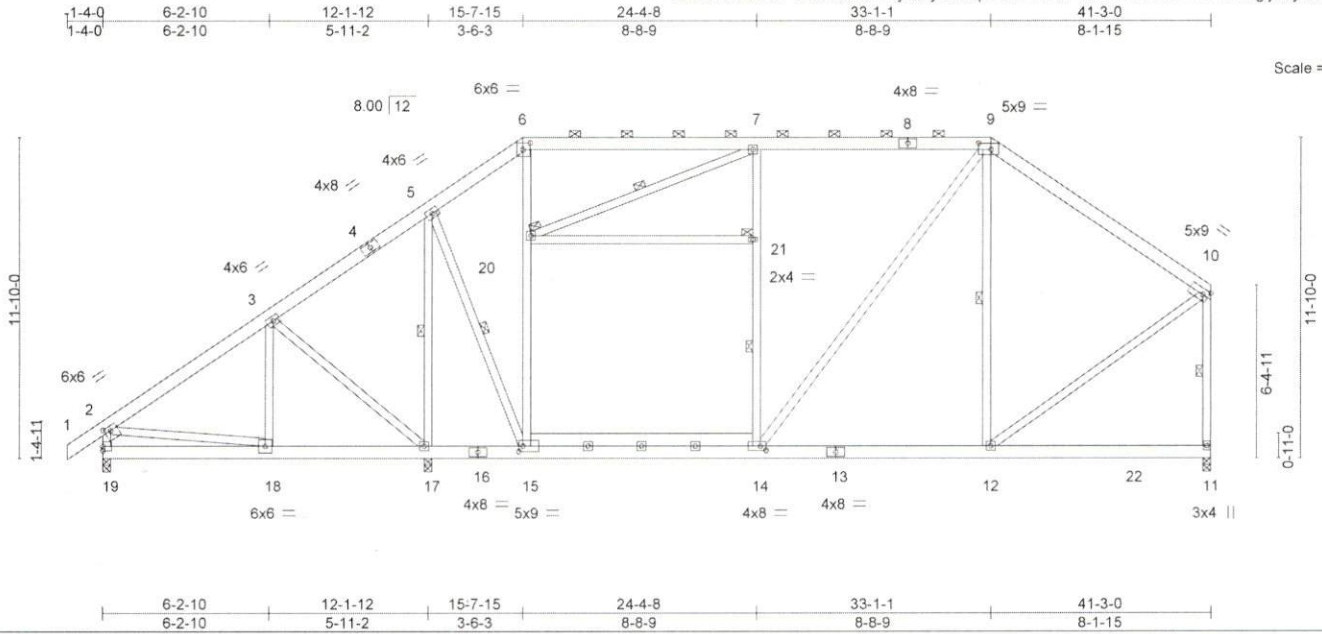


Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	I48491793
2100826-2100826A	A4	ROOF TRUSS	1	1		

84 Components (Dunn), Dunn, NC - 28334,

8 520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13 50:59 2021 Page 1

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Scale = 1:82.1

Plate Offsets (X,Y)--	[2-0-2-12,0-2-0], [6-0-3-4,0-3-0], [9-0-5-8,0-2-12], [14-0-2-8,0-2-0], [15-0-1-12,0-2-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.60	Vert(LL)	-0.19 12-14	>999	240	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.96	Vert(CT)	-0.37 12-14	>930	180		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.79	Horz(CT)	0.04 11	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Attic	-0.09 14-15	1162	360		
	Code IRC2015/TPI2014						Weight: 399 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-8-13 oc purlins, except end verticals, and 2-0-0 oc purlins (4-10-2 max.): 6-9.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x4 SP No.3 *Except*	2-2-0 oc bracing: 15-17.
9-14: 2x4 SP No.2 or 2x4 SPF No.2	WEBS 1 Row at midpt 5-17, 5-15, 14-21, 9-12, 10-11, 7-20
	JOINTS 1 Brace at Jt(s): 20, 21

REACTIONS.	(size)
19=0-3-8, 17=0-3-8, 11=0-3-8	
Max Horz 19=374(LC 9)	
Max Uplift 19=-18(LC 8), 17=-212(LC 27), 11=-38(LC 8)	
Max Grav 19=1801(LC 2), 17=565(LC 10), 11=1899(LC 2)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-2314/216, 3-5=-2174/289, 5-6=-2084/299, 6-7=-1724/280, 7-9=-1740/285, 9-10=-1461/251, 2-19=-1733/248, 10-11=-1782/214
BOT CHORD	18-19=-342/464, 17-18=-302/1852, 15-17=-172/1737, 14-15=-116/1729, 12-14=-113/1142
WEBS	3-17=-331/219, 5-17=-325/91, 15-20=-100/743, 6-20=-7/802, 14-21=-639/253, 7-21=-526/279, 9-14=-57/1014, 9-12=-518/155, 2-18=-127/1662, 10-12=-74/1404

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are 4x4 MT20 unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Ceiling dead load (5.0 psf) on member(s). 20-21; Wall dead load (5.0psf) on member(s).15-20, 14-21
  - Bottom chord live load (20.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 14-15
  - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at Jt(s) 19, 17, and 11. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

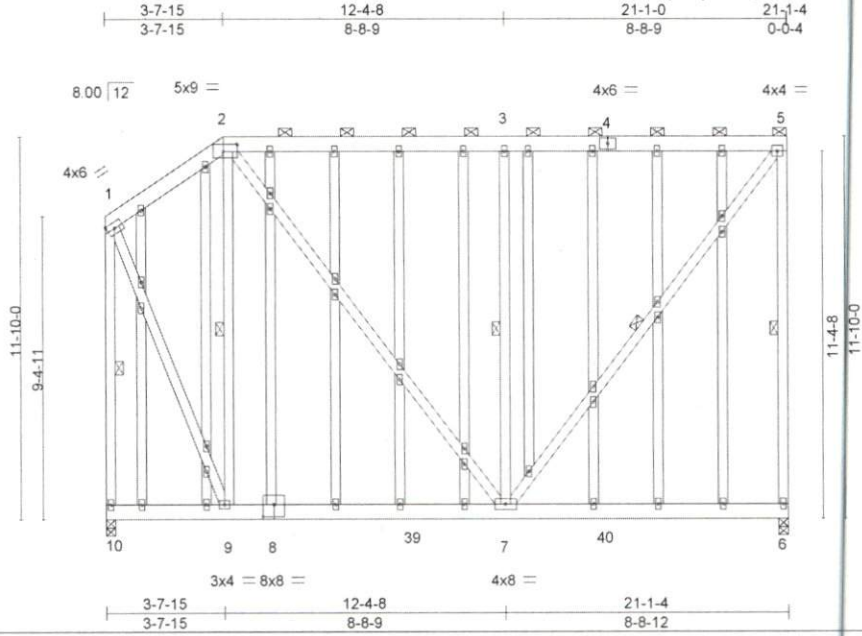


October 25, 2021



Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	
2100826-2100826A	A5	GABLE	1	1		148491794

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:51:01 2021 Page 1  
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Scale = 1:68.5

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

<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.54	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.35	Vert(LL) -0.07 6-7 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.40	Vert(CT) -0.12 6-7 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.00 6 n/a n/a		
	Code IRC2015/TPI2014			Weight: 374 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-5.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except*	WEBS 1 Row at midpt 2-9, 3-7, 5-7, 1-10, 5-6
2-7, 5-7: 2x4 SP No.2 or 2x4 SPF No.2	
OTHERS 2x4 SP No.3	

**REACTIONS.** (size) 10=0-3-8, 6=0-3-8  
 Max Horz 10=92(LC 12)  
 Max Uplift 10=-73(LC 9), 6=-173(LC 9)  
 Max Grav 10=867(LC 2), 6=926(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-338/79, 2-3=-449/115, 3-5=-449/115, 1-10=-874/118, 5-6=-761/243  
 BOT CHORD 7-9=-106/256  
 WEBS 2-9=-450/138, 2-7=-85/332, 3-7=-617/283, 5-7=-189/736, 1-9=-63/689

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10 and 6. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

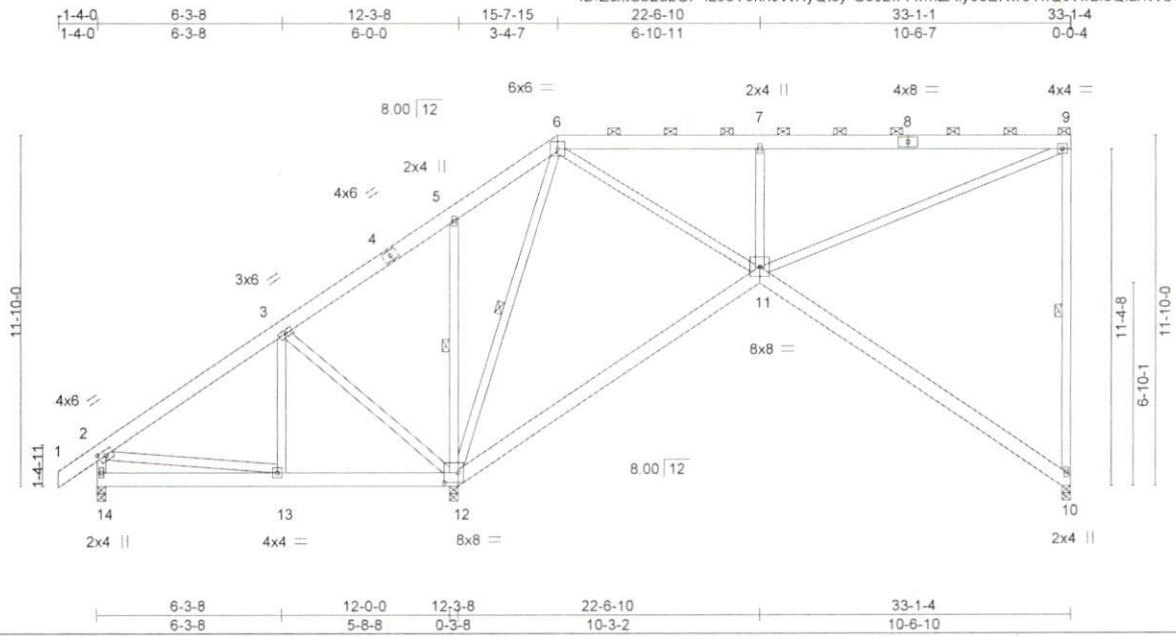


October 25, 2021



Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	I48491795
2100826-2100826A	A6	Piggyback Base	4	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:51:02 2021 Page 1  
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Scale = 1:75.0

Plate Offsets (X, Y)-- [2:0-2-14,0-2-0], [12:0-5-12,0-4-0]

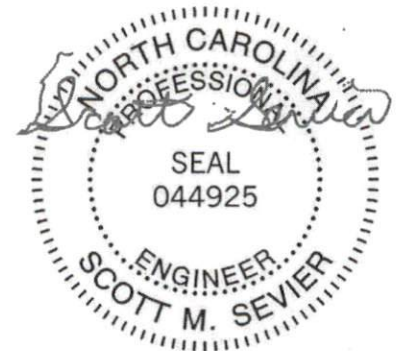
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.66	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.47	Vert(LL) -0.15 10-11 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.74	Vert(CT) -0.30 10-11 >817 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.08 10 n/a n/a		
	Code IRC2015/TPI2014			Weight: 285 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.); 6-9.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 9-10, 5-12, 6-12

**REACTIONS.** (size) 10=0-3-8, 14=0-3-8, 12=0-3-8  
 Max Horz 14=421(LC 12)  
 Max Uplift 10=-127(LC 9), 14=-97(LC 24), 12=-259(LC 9)  
 Max Grav 10=597(LC 24), 14=261(LC 19), 12=1952(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-259/374, 3-5=-260/708, 5-6=-112/659, 6-7=-576/183, 7-9=-576/183, 9-10=-507/198  
 BOT CHORD 13-14=-426/408, 12-13=-280/179, 11-12=-311/60  
 WEBS 3-13=0/274, 3-12=-512/218, 5-12=-330/213, 6-12=-1079/255, 6-11=-189/917, 7-11=-652/300, 9-11=-198/617, 2-13=-315/299

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf, BCCL=6.0psf, h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Bearing at joint(s) 10 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 97 lb uplift at joint 14.
  - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10 and 12. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



October 25, 2021

Job 2100826-2100826A	Truss A7	Truss Type PIGGYBACK BASE	Qty 3	Ply 1	1393 Walker RD Castio	I48491796
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B4 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:51:03 2021 Page 1  
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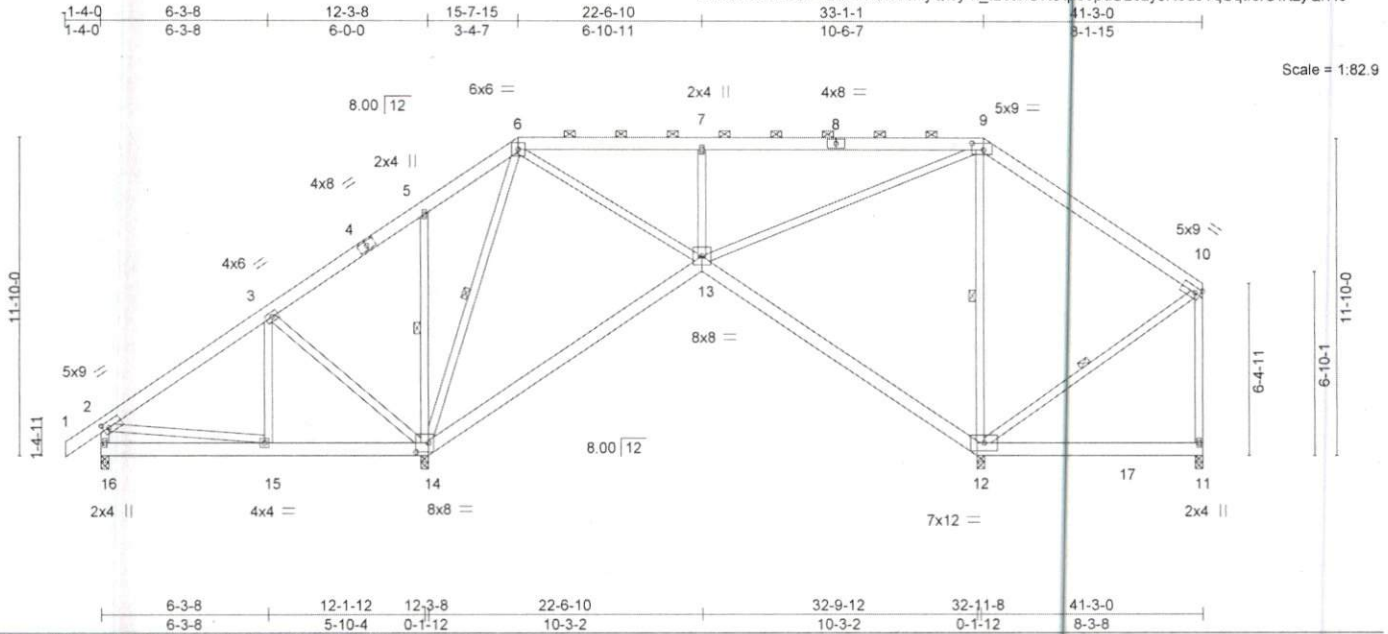


Plate Offsets (X, Y)-- [2,0-2-9,0-2-8], [9,0-5-4,0-3-0], [14,0-5-12,0-4-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.60	Vert(LL)	-0.11 13-14	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.39	Vert(CT)	-0.23 13-14	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.62	Horz(CT)	0.05 11	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-MS						

Weight: 350 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-9.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-14, 6-14, 9-12, 10-12

**REACTIONS.** All bearings 0-3-8.  
 (lb) - Max Horz 16=374(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 16 except 14=253(LC 9), 11=246(LC 23), 12=216(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) except 16=321(LC 20), 14=1711(LC 1), 11=269(LC 11), 12=1525(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-305/311, 3-5=-266/639, 5-6=-175/594, 9-10=-192/459, 2-16=-263/142, 10-11=-210/317  
 BOT CHORD 15-16=-334/366, 14-15=-228/271, 13-14=-398/260, 12-13=-399/198  
 WEBS 3-15=0/265, 3-14=-501/206, 5-14=-325/210, 6-14=-829/251, 6-13=-155/526, 7-13=-633/290, 9-13=-253/552, 9-12=-950/322, 2-15=-266/270, 10-12=-334/119

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 16, 14, 11, and 12. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



October 25, 2021



Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	I48491797
2100826-2100826A	A8	Piggyback Base	2	1	Job Reference (optional)	

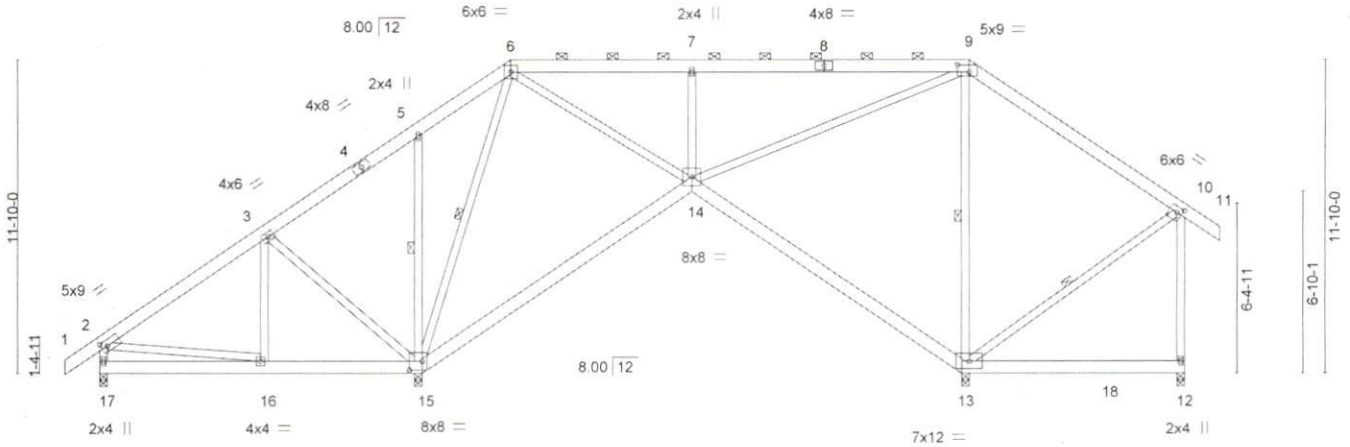
84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MITek Industries, Inc. Fri Oct 22 13:51:04 2021 Page 1

ID: ZcXtCb2dLGP4z35Y9kn9WHyQtsy-DARjLEx04o?gFJOp22bCVWw\_GKZL3DH8ory?UPQyQrHb

1-4-0	6-3-8	12-3-8	15-7-15	22-6-10	33-1-1	41-3-0	42-7-0
1-4-0	6-3-8	6-0-0	3-4-7	6-10-11	10-6-7	8-1-15	1-4-0

Scale = 1.83.9



6-3-8	12-1-12	12-3-8	22-6-10	32-9-12	32-11-8	41-3-0
6-3-8	5-10-4	0-1'-12	10-3-2	10-3-2	0-1'-12	8-3-8

Plate Offsets (X,Y)-- [2.0-2-9,0-2-8], [9.0-5-4,0-3-0], [10.0-2-8,0-2-8], [15.0-5-12,0-4-0]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15		TC 0.61	Vert(LL)	-0.11 14-15	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.39	Vert(CT)	-0.23 14-15	>999	180		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.62	Horz(CT)	0.05 12	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						

Weight: 353 lb FT = 20%

- LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3
- BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.); 6-9.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-15, 6-15, 9-13, 10-13

**REACTIONS.** All bearings 0-3-8.  
 (lb) - Max Horz 17=382(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 17 except 15=249(LC 9), 12=219(LC 23), 13=210(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) except 17=326(LC 20), 15=1702(LC 1), 12=312(LC 11), 13=1538(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-313/309, 3-5=-258/636, 5-6=-167/591, 9-10=-186/468, 2-17=-268/158, 10-12=-244/290  
 BOT CHORD 16-17=-325/388, 15-16=-226/278, 14-15=-414/279, 13-14=-407/210  
 WEBS 3-16=0/265, 3-15=-503/201, 5-15=-325/210, 6-15=-822/245, 6-14=-152/522, 7-14=-634/290, 9-14=-246/553, 9-13=-948/274, 2-16=-278/265, 10-13=-348/141

- NOTES-**  
 1) Unbalanced roof live loads have been considered for this design.  
 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCCL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
 3) Provide adequate drainage to prevent water ponding.  
 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCCL = 10.0psf.  
 6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at j(s) 17, 15, 12, and 13. This connection is for uplift only and does not consider lateral forces.  
 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.





Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	148491798
2100826-2100826A	A8E	GABLE	1	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:51:07 2021 Page 1  
 ID: ZcxtCb2dLGP4z35Y9kn9WHyQtsy-dl7r\_F\_uNjNF6n6DJBv79cumNnQeaFXwE80kyQrHY

1-4-0	6-3-8	12-3-8	15-7-15	22-6-10	33-1-1	41-3-0	42-7-0
1-4-0	6-3-8	6-0-0	3-4-7	6-10-11	10-6-7	8-1-15	1-4-0

Scale = 1:83.9

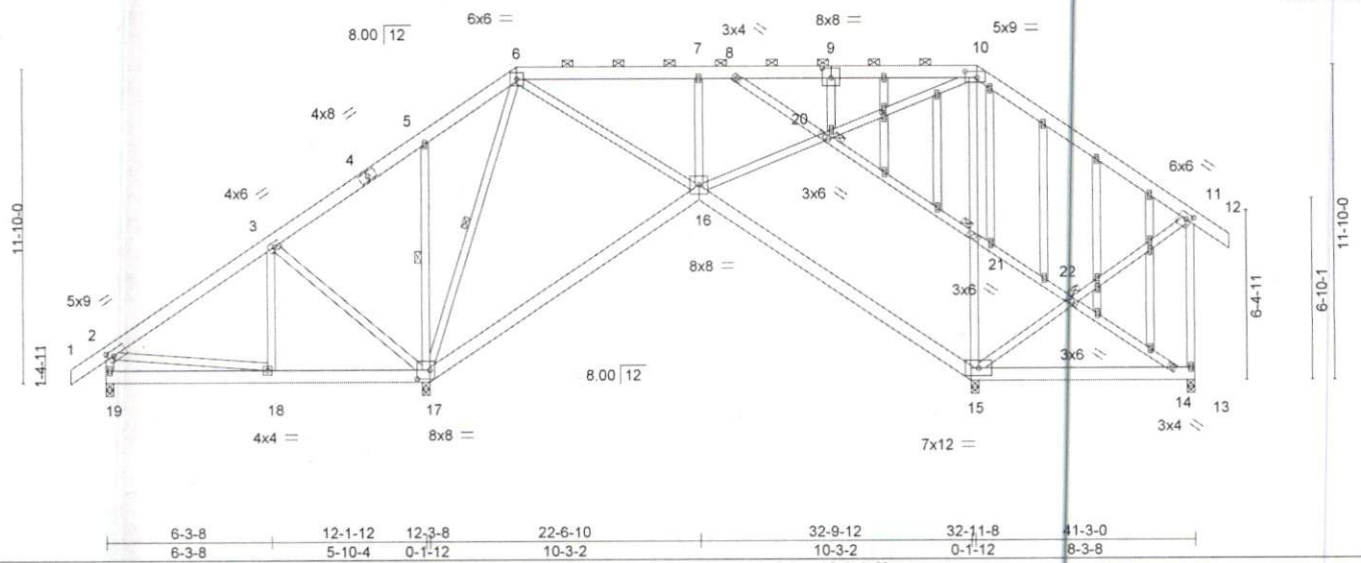


Plate Offsets (X,Y)--	[2:0-2-9,0-2-8], [9:0-4-0,0-4-8], [10:0-5-4,0-2-12], [11:0-2-8,0-2-8], [17:0-5-12,0-4-0], [25:0-1-13,0-1-0]
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LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.52	Vert(LL)	-0.11 16-17	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.39	Vert(CT)	-0.23 16-17	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.64	Horz(CT)	0.06 13	n/a	n/a		
BCDL 10.0	Code IRC2015/TP12014	Matrix-MS					Weight: 432 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-10.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-17, 6-17
OTHERS 2x4 SP No.3	JOINTS 1 Brace at Jt(s): 20, 21, 22

**REACTIONS.** All bearings 0-3-8.  
 (lb) - Max Horz 19=382(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) 19 except 17=229(LC 9), 13=127(LC 23), 15=149(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) except 19=342(LC 20), 17=1669(LC 1), 13=284(LC 11), 15=1440(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-293/246, 3-5=-214/567, 5-6=-126/526, 6-7=-339/216, 7-8=-339/216, 10-11=-233/548, 2-19=-283/181, 11-13=-275/387  
 BOT CHORD 18-19=-328/390, 16-17=-381/238, 15-16=-316/70, 14-15=-217/301  
 WEBS 3-18=0/263, 3-17=-500/197, 5-17=-322/209, 6-17=-843/257, 6-16=-189/584, 7-16=-423/173, 16-20=-175/437, 10-20=-177/440, 15-21=-938/268, 10-21=-936/268, 2-18=-257/235, 15-22=-430/189, 11-22=-434/191, 8-20=-361/215, 20-21=-361/216, 21-22=-357/214, 14-22=-355/214

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TP1.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 19, 17, 13, and 15. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



October 25, 2021

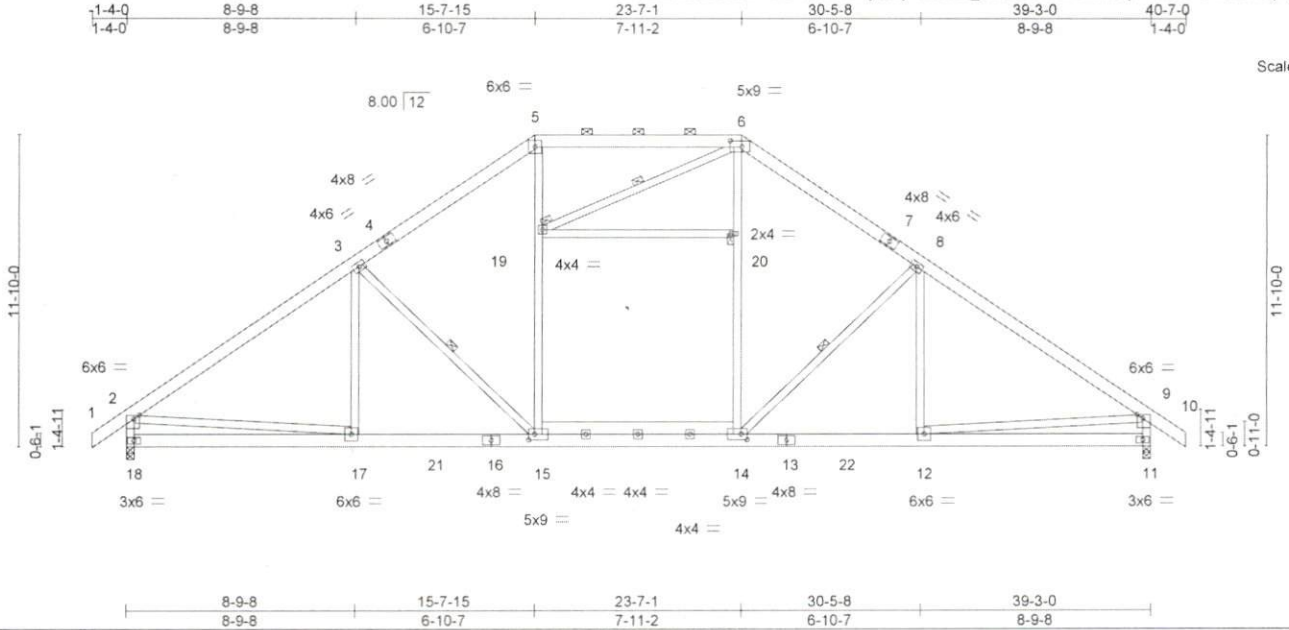
**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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

Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	148491799
2100826-2100826A	B	ROOF TRUSS	5	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8 520 s Aug 27 2021 MITek Industries, Inc. Fri Oct 22 13 51 08 2021 Page 1  
 ID: ZcxtCb2dLGP4z35Y9kn9WHyQtsy-5xhEBb\_X80W6kxhbHuf8fM9y1Afr957OmazhYByQRHX



Scale = 1:84.5

Plate Offsets (X, Y)-- [2,0-2-8,0-1-12], [6,0-5-4,0-2-12], [9,0-2-8,0-1-12], [14,0-2-12,0-2-8], [15,0-2-12,0-2-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.63	Vert(LL) -0.20	15-17	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.62	Vert(CT) -0.27	15-17	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.62	Horz(CT) 0.04	11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Attic -0.13	14-15	690	360	Weight: 352 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-5-7 oc purlins, except end verticals, and 2-0-0 oc purlins (5-1-14 max.): 5-6.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 2-18,9-11: 2x4 SP No.2 or 2x4 SPF No.2	WEBS 1 Row at midpt 3-15, 8-14, 6-19
	JOINTS 1 Brace at Jt(s): 19, 20

REACTIONS.	(size)
18=0-3-8, 11=0-3-8	18=0-3-8, 11=0-3-8
Max Horz 18=317(LC 11)	Max Horz 18=317(LC 11)
Max Uplift 18=-48(LC 12), 11=-48(LC 13)	Max Uplift 18=-48(LC 12), 11=-48(LC 13)
Max Grav 18=1802(LC 1), 11=1802(LC 1)	Max Grav 18=1802(LC 1), 11=1802(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-2357/191, 3-5=-2011/241, 5-6=-1611/251, 6-8=-2012/241, 8-9=-2357/191, 2-18=-1713/242, 9-11=-1713/242
BOT CHORD	17-18=-262/614, 15-17=-22/2004, 14-15=0/1590, 12-14=0/1858, 11-12=-86/439
WEBS	3-15=-567/311, 15-19=-39/705, 5-19=0/737, 14-20=-40/706, 6-20=0/745, 8-14=-566/310, 2-17=0/1493, 9-12=0/1493

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Ceiling dead load (5.0 psf) on member(s). 19-20; Wall dead load (5.0psf) on member(s). 15-19, 14-20
  - 7) Bottom chord live load (20.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 14-15
  - 8) Bearing at joint(s) 18, 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 18 and 11. This connection is for uplift only and does not consider lateral forces.
  - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 11) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.





Job 2100826-2100826A	Truss B1	Truss Type Piggyback Base Girder	Qty 1	Ply 2	1393 Walker RD Castio	48491800
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84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:51:10 2021 Page 1  
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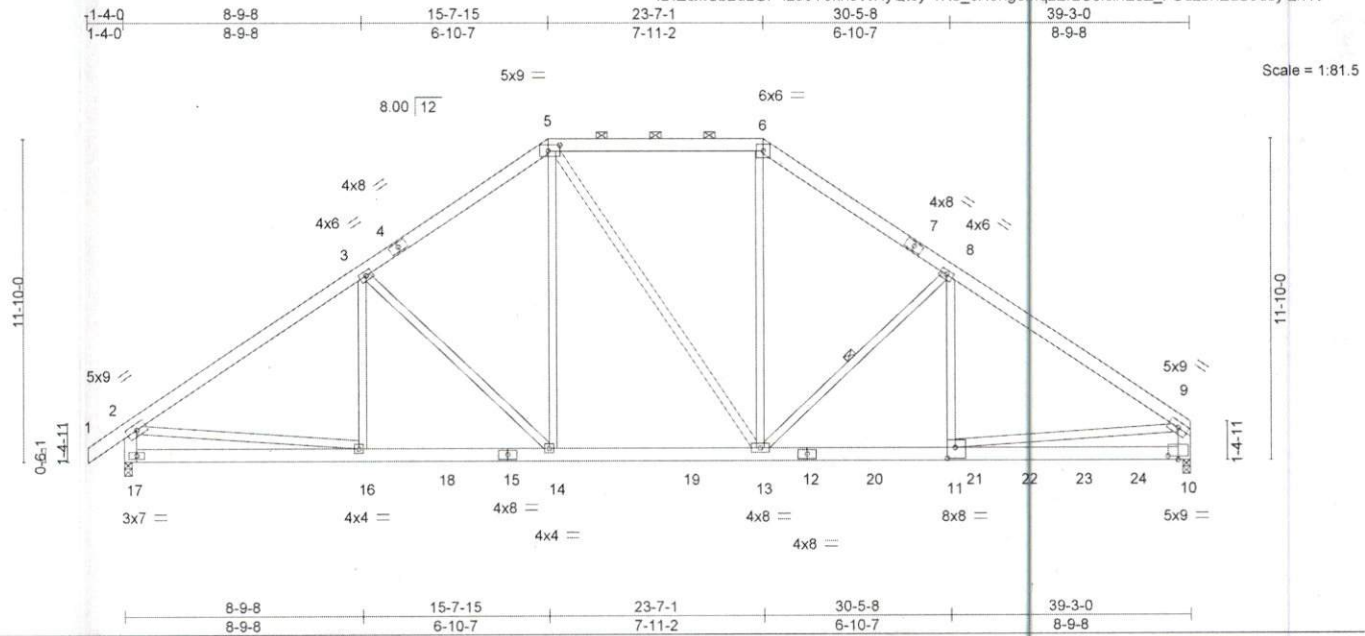


Plate Offsets (X,Y)-- [5.0-5.4,0-2.12], [10.0-4.8,0-1.8], [11.0-3.8,0-4.12]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.56	Vert(LL)	-0.16 10-11	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.97	Vert(CT)	-0.32 10-11	>999	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.75	Horz(CT)	0.04 10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 659 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 5-13: 2x4 SP No.2 or 2x4 SPF No.2, 2-17,9-10: 2x6 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.); 5-6.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 8-13

**REACTIONS.** (size) 17=0-3-8, 10=0-3-8  
 Max Horz 17=310(LC 9)  
 Max Uplift 17=-274(LC 12), 10=-601(LC 13)  
 Max Grav 17=2354(LC 1), 10=4799(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-3119/536, 3-5=-2830/609, 5-6=-2717/628, 6-8=-3372/688, 8-9=-5988/944, 2-17=-2252/470, 9-10=-3941/658  
 BOT CHORD 16-17=-328/732, 14-16=-335/2466, 13-14=-208/2259, 11-13=-678/4859, 10-11=-232/1292  
 WEBS 3-14=-529/305, 5-14=-99/641, 5-13=-268/976, 6-13=-194/1433, 8-13=-3013/621, 8-11=-428/3084, 2-16=-145/1974, 9-11=-449/3614

- NOTES-**
- 2-ply truss to be connected together with 10d (0.120"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Bearing at joint(s) 17, 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 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.
  - Two H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Continued on page 2

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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

Job 2100826-2100826A	Truss B1	Truss Type Piggyback Base Girder	Qty 1	Ply 2	1393 Walker RD Castio Job Reference (optional)	I48491800
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84 Components (Dunn), Dunn, NC - 28334,

8 520 s Aug 27 2021 MiTek Industries, Inc Fri Oct 22 13:51:11 2021 Page 2  
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**NOTES-**

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2262 lb down and 336 lb up at 30-5-8, 433 lb down and 67 lb up at 31-2-4, 433 lb down and 67 lb up at 33-2-4, and 433 lb down and 67 lb up at 35-2-4, and 433 lb down and 67 lb up at 37-2-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-2=-60, 2-5=-60, 5-6=-60, 6-9=-60, 10-17=-20

Concentrated Loads (lb)

Vert: 11=-2225(B) 21=-433(B) 22=-433(B) 23=-433(B) 24=-433(B)

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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818 Soundside Road  
Edenton, NC 27932



Job 2100826-2100826A	Truss B2	Truss Type Piggyback Base	Qty 3	Ply 1	1393 Walker RD Castio	I48491801
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84 Components (Dunn), Dunn, NC - 28334, 8,520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:51:12 2021 Page 1  
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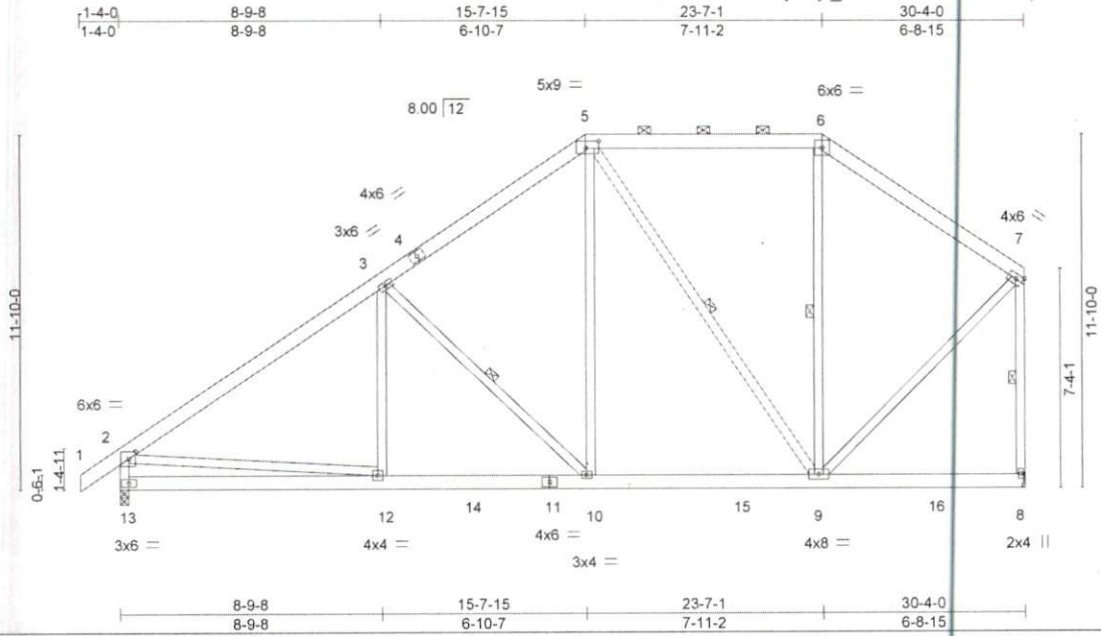


Plate Offsets (X,Y)-- [2:0-2-12,0-3-0], [5:0-5-4,0-2-12]

<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.99	Vert(LL) -0.05 9-10 >999 240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.34	Vert(CT) -0.10 12-13 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.44	Horz(CT) 0.02 8 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS		Weight: 269 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-5-11 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.); 5-6.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except*	WEBS 1 Row at midpt 3-10, 5-9, 6-9, 7-8
5-9: 2x4 SP No.2 or 2x4 SPF No.2	
OTHERS 2x4 SP No.3	

**REACTIONS.** (size) 8=Mechanical, 13=0-3-8  
 Max Horz 13=386(LC 11)  
 Max Uplift 8=-73(LC 12), 13=-155(LC 12)  
 Max Grav 8=1253(LC 2), 13=1293(LC 1)

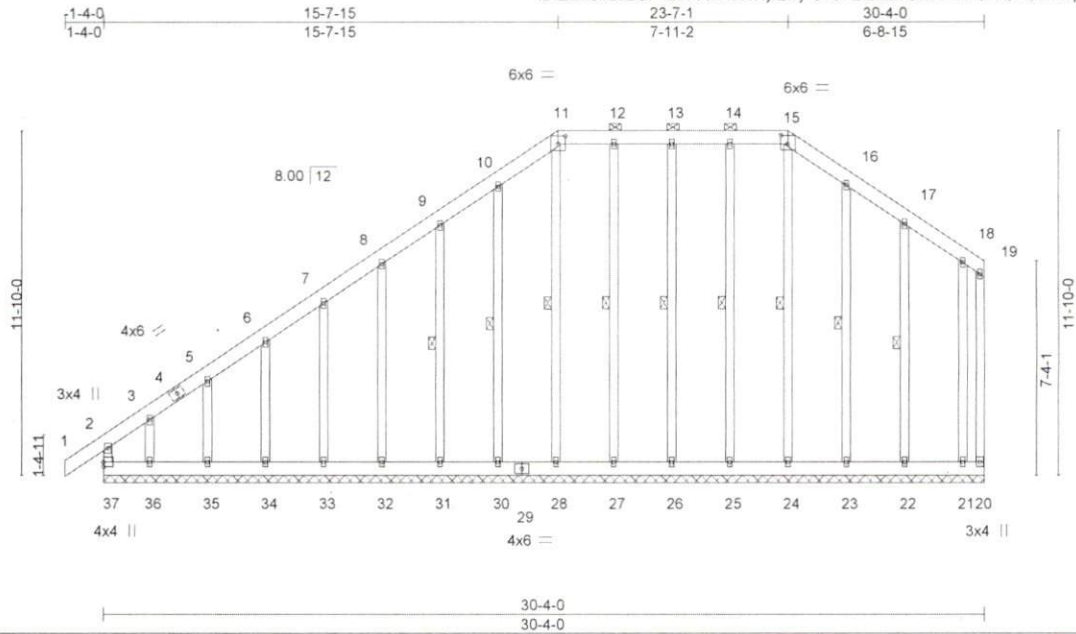
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1526/282, 3-5=-1114/341, 5-6=-619/297, 6-7=-773/282, 2-13=-1205/303, 7-8=-1144/269  
 BOT CHORD 12-13=-463/658, 10-12=-401/1314, 9-10=-244/899  
 WEBS 3-12=0/264, 3-10=-588/254, 5-10=-93/679, 5-9=-530/123, 2-12=0/867, 7-9=-161/835

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Bearing at joint(s) 13 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 100 lb uplift at joint(s) 8.
  - One H2 5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	I48491802
2100826-2100826A	B2E	Piggyback Base Supported Gable	1	1		

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MITek Industries, Inc. Fri Oct 22 13:51:13 2021 Page 1  
 ID ZcxtCb2dLGP4z35Y9kn9WHYQtsy-SvU7Ei2fzZ8OriaY4RFJMQsrUBVbqU57wshSEOyQrHS



Scale = 1:76.0

Plate Offsets (X,Y)-- [11:0-3-0,0-3-4], [15:0-3-0,0-3-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.45	Vert(LL)	-0.00	1	n/r	120	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	-0.00	1	n/r	90	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	-0.00	20	n/a	n/a	
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R						
									Weight: 344 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.); 11-15.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 15-24, 14-25, 13-26, 12-27, 11-28, 10-30, 9-31, 16-23, 17-22
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 30-4-0.  
 (lb) - Max Horz 37=385(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 20, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 23, 22 except 37=-271(LC 8), 36=-294(LC 9), 21=-103(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 20, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 23, 22, 21 except 37=432(LC 9), 36=307(LC 10)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-37=-318/196, 2-3=-410/334, 3-5=-310/249, 5-6=-292/232, 6-7=-274/227, 7-8=-257/223, 10-11=-261/295, 11-12=-232/271, 12-13=-232/271, 13-14=-232/271, 14-15=-232/271, 15-16=-260/294

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - n/a
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



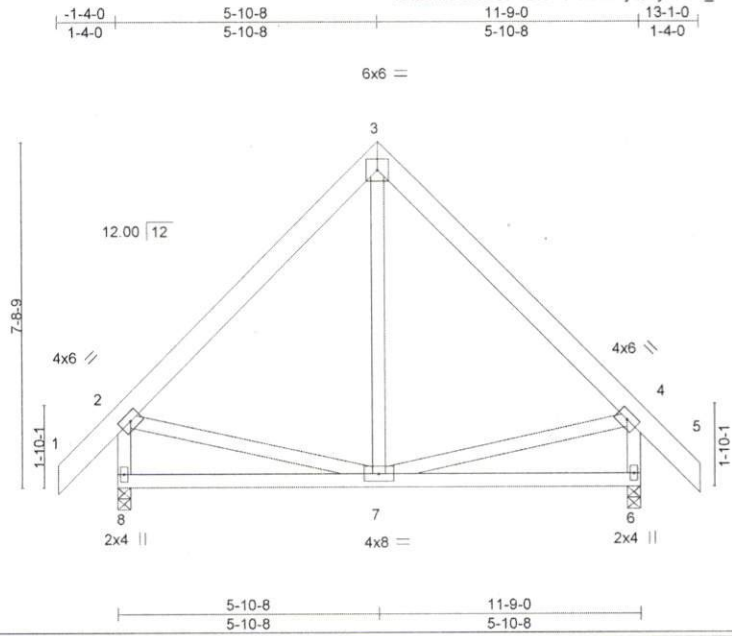
October 25, 2021



Job 2100826-2100826A	Truss C	Truss Type Common	Qty 3	Ply 1	1393 Walker RD Castio Job Reference (optional)	48491803
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84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:51:15 2021 Page 1  
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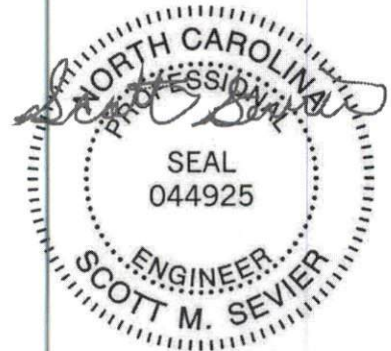
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.30	Vert(LL) -0.03 6-7 >999 240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.32	Vert(CT) -0.06 6-7 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.08	Horz(CT) -0.00 6 n/a n/a	Weight: 97 lb	FT = 20%
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MP			

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (size) 8=0-3-8, 6=0-3-8  
 Max Horz 8=-233(LC 10)  
 Max Uplift 8=-58(LC 12), 6=-58(LC 13)  
 Max Grav 8=547(LC 1), 6=547(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-389/108, 3-4=-389/108, 2-8=-504/183, 4-6=-504/183

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 6. This connection is for uplift only and does not consider lateral forces.



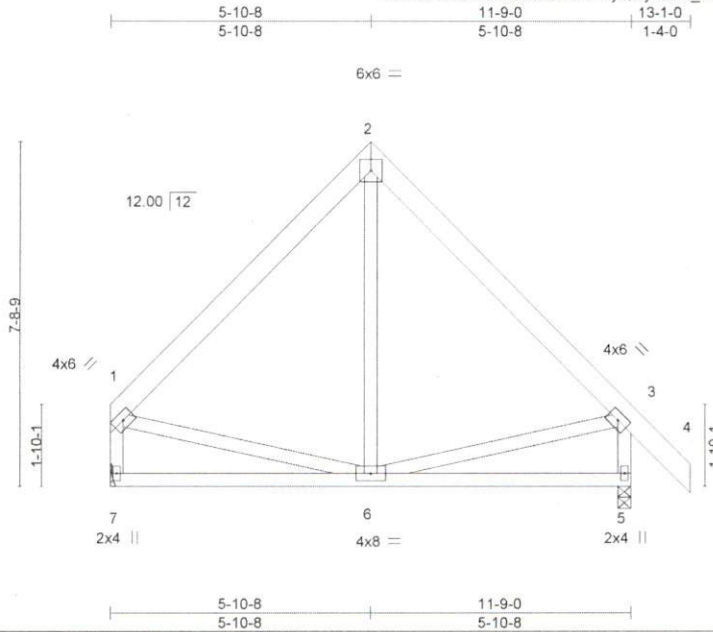
October 25, 2021

Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	148491804
2100826-2100826A	C1	Common	4	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:51:15 2021 Page 1

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Scale = 1.49.8

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.30	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.32	Vert(LL) -0.03 5-6 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.08	Vert(CT) -0.06 5-6 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP	Horz(CT) 0.00 5 n/a n/a	Weight: 93 lb	FT = 20%
	Code IRC2015/TPI2014				

**LUMBER-**

TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2  
 WEBS 2x4 SP No.3

**BRACING-**

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

**REACTIONS.**

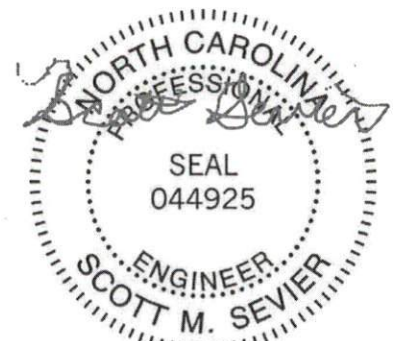
(size) 7=Mechanical, 5=0-3-8  
 Max Horz 7=221(LC 8)  
 Max Uplift 7=-47(LC 13), 5=-57(LC 13)  
 Max Grav 7=453(LC 1), 5=553(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-363/92, 2-3=-395/106, 1-7=-409/116, 3-5=-509/181  
 WEBS 3-6=-8/252

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.



October 25, 2021

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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/TPH Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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 Edenton, NC 27932

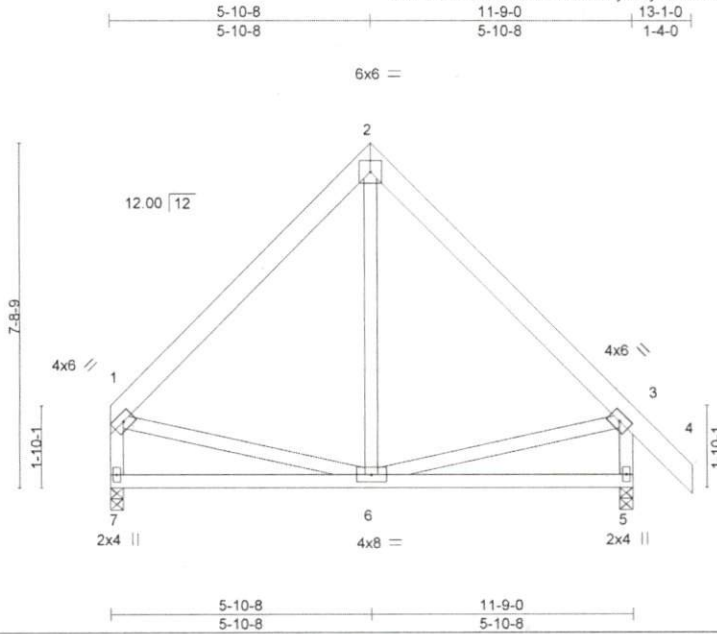


Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	I48491805
2100826-2100826A	C1A	Common	1	1	Job Reference (optional)	

84 Components (Dunn),

Dunn, NC - 28334,

8 520 s Aug 27 2021 MITek Industries, Inc. Fri Oct 22 13:51:16 2021 Page 1  
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Scale = 1:49.8

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.30	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.32	Vert(LL) -0.03 5-6 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.08	Vert(CT) -0.06 5-6 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP	Horz(CT) 0.00 5 n/a n/a	Weight: 93 lb	FT = 20%
	Code IRC2015/TPI2014				

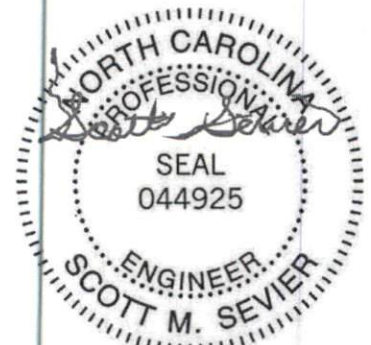
**LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2  
 WEBS 2x4 SP No.3

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

**REACTIONS.** (size) 7=0-3-8, 5=0-3-8  
 Max Horz 7=-221(LC 8)  
 Max Uplift 7=-47(LC 13), 5=-57(LC 13)  
 Max Grav 7=453(LC 1), 5=553(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-363/92, 2-3=-395/106, 1-7=-409/116, 3-5=-509/181  
 WEBS 3-6=-8/252

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7 and 5. This connection is for uplift only and does not consider lateral forces.



October 25, 2021

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 Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



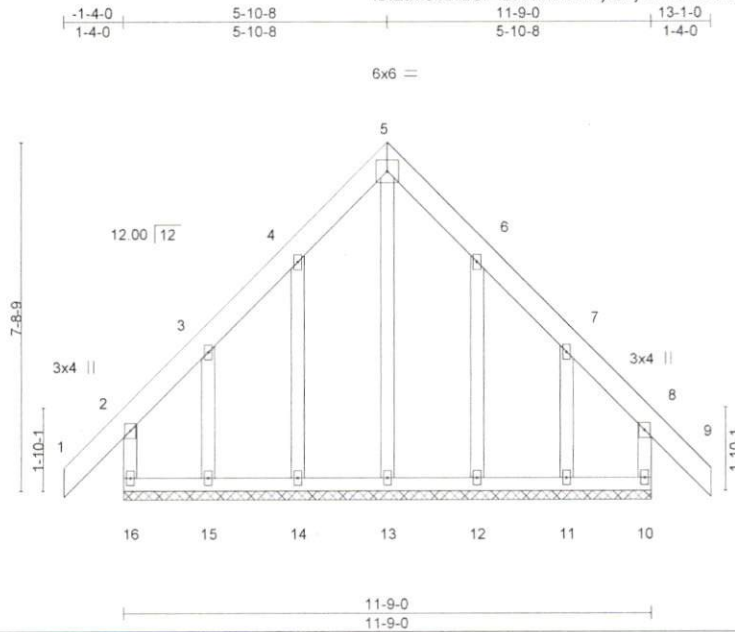
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	I48491806
2100826-2100826A	CE	Common Supported Gable	1	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

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Scale = 1.49.1

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	-0.00	9	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.01	9	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.32	Horz(CT)	-0.00	10	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R					Weight: 104 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

**BRACING-**

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

**REACTIONS.**

All bearings 11-9-0.  
 (lb) - Max Horz 16=-232(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 14, 12 except 16=-154(LC 8), 10=-143(LC 9), 15=-162(LC 12), 11=-159(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 16, 10, 14, 15, 12, 11 except 13=266(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 4-5=-205/300, 5-6=-205/300  
 WEBS 5-13=-330/150

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCCL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.



October 25, 2021

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
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ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate

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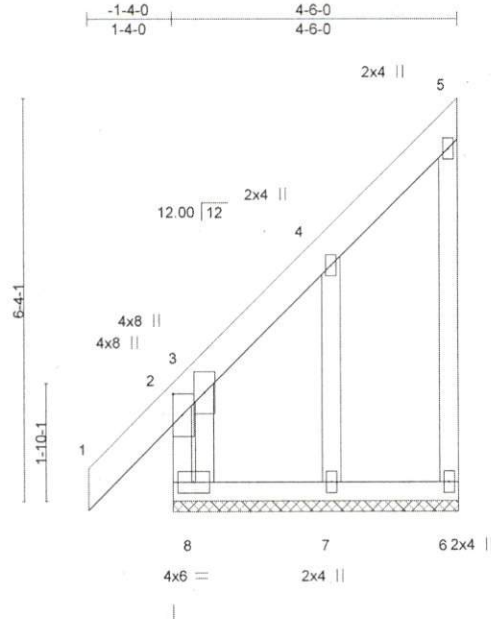


Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	I48491807
2100826-2100826A	M1	Monopitch Supported Gable	1	1	Job Reference (optional)	

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8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:51:18 2021 Page 1

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Scale = 1:34.9

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.48	Vert(LL)	0.00 1-2	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.00 1-2	n/r	90		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.28	Horz(CT)	-0.00 6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R					Weight: 44 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

**BRACING-**

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

**REACTIONS.**

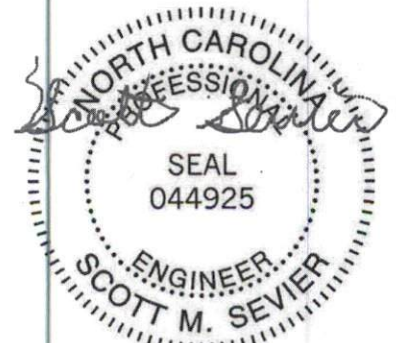
(size) 8=4-6-0, 6=4-6-0, 7=4-6-0  
 Max Horz 8=237(LC 9)  
 Max Uplift 8=-108(LC 8), 6=-38(LC 11), 7=-227(LC 12)  
 Max Grav 8=329(LC 20), 6=79(LC 19), 7=255(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-8=-741/808, 2-3=-368/430, 3-4=-437/391  
 WEBS 4-7=-431/445, 3-8=-1131/948

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCCL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.



October 25, 2021

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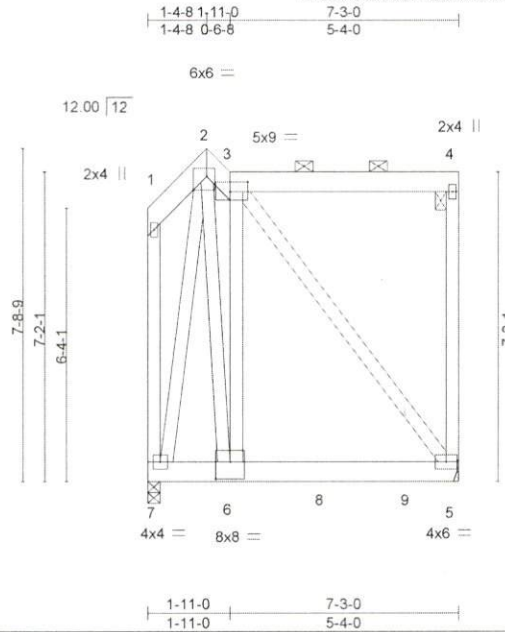
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	148491808
2100826-2100826A	M1GR	Roof Special Girder	1	2	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:51:20 2021 Page 1

ID: ZcxtCb2dLGP4z35Y9kn9WHyQtsy-IFPmii82Ji0PAncu\_Pty8ue2B0gPzVG9XStk\_UyQrHL



Scale = 1:51.4

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	-0.07	5-6	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.99	Vert(CT)	-0.13	5-6	>642		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.61	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP					Weight: 192 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (size) 5=Mechanical, 7=0-3-8  
 Max Horz 7=255(LC 9)  
 Max Uplift 5=-316(LC 9), 7=-198(LC 8)  
 Max Grav 5=2294(LC 2), 7=1882(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-837/187  
 BOT CHORD 6-7=-287/454, 5-6=-295/640  
 WEBS 2-6=-396/2935, 3-6=-265/406, 3-5=-1047/351, 2-7=-2477/415

- NOTES-**
- 2-ply truss to be connected together with 10d (0.120"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf, BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=316.
  - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1230 lb down and 93 lb up at 2-0-12, and 1230 lb down and 93 lb up at 4-0-12, and 1230 lb down and 93 lb up at 6-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard  
 Continued on page 2



October 25, 2021



Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	I48491808
2100826-2100826A	M1GR	Roof Special Girder	1	2	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:51:20 2021 Page 2  
 ID: ZcxtCb2dLGP4z35Y9kn9WHyQtsy-IFPmii82JiOPAncu\_Pty8ue2B0gPzWG9XSik\_UyQrHL

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-2=-60, 2-3=-60, 3-4=-60, 5-7=-20

Concentrated Loads (lb)

Vert: 6=-1179(F) 8=-1179(F) 9=-1179(F)

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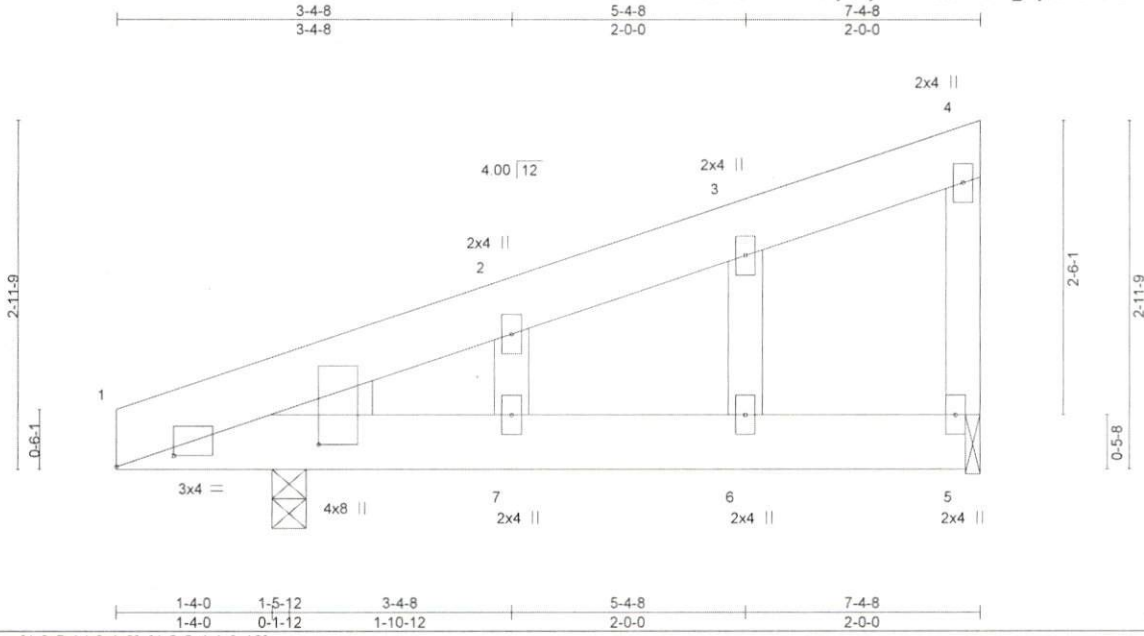
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Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	I48491809
2100826-2100826A	M2	Monopitch	2	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8 520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:51:20 2021 Page 1  
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Scale = 1:18.8

Plate Offsets (X,Y)-- [1:0-5-14,0-1-2], [1:0-2-4,1-8-12]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	-0.02	6-7	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	-0.03	6-7	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	1	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-MP						Weight: 43 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 1=0-3-8, 5=0-1-8  
 Max Horz 1=102(LC 11)  
 Max Uplift 1=-56(LC 8), 5=-51(LC 12)  
 Max Grav 1=355(LC 1), 5=224(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
- 6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 5. This connection is for uplift only and does not consider lateral forces.



October 25, 2021

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Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	148491810
2100826-2100826A	M3	Monopitch	15	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8.520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:51:21 2021 Page 1  
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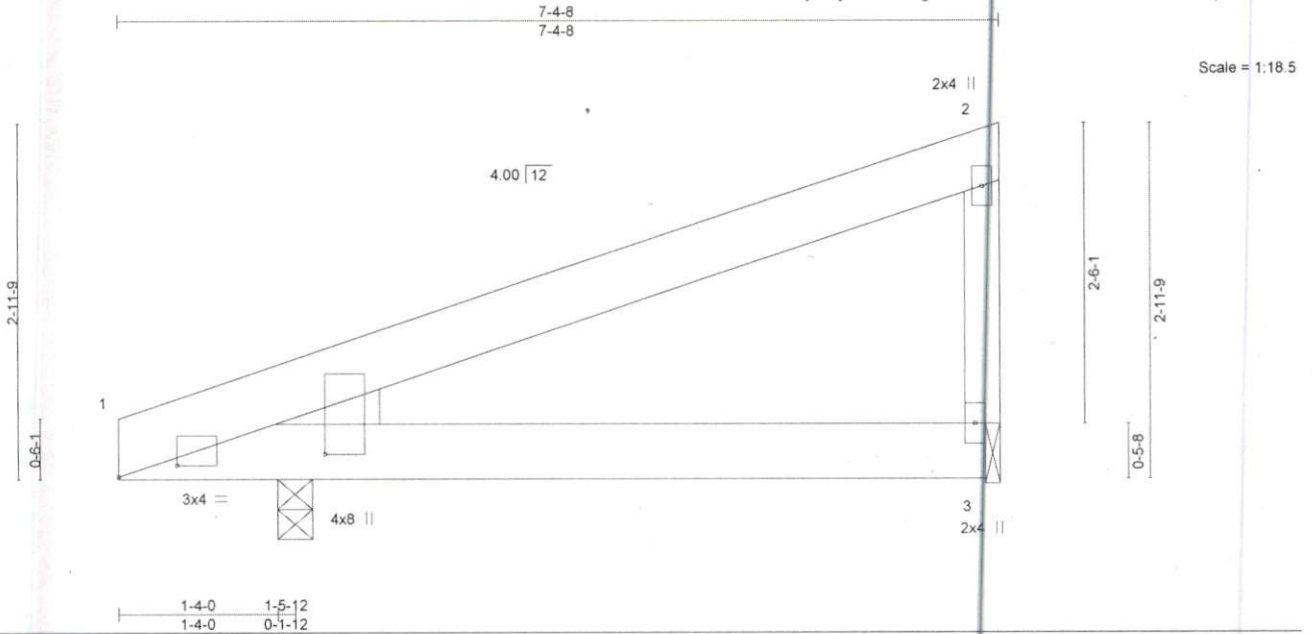


Plate Offsets (X,Y)-- [1:0-5-14,0-1-2], [1:0-2-4,1-8-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.20	Vert(LL)	0.02	3-8	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.15	Vert(CT)	-0.03	3-8	>999		
BCLL 0.0	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	1	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP					Weight: 40 lb	FT = 20%
	Code IRC2015/TPI2014							

**LUMBER-**

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

**BRACING-**

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

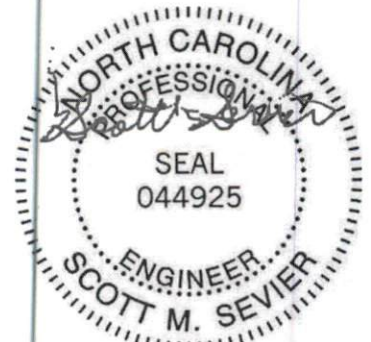
**REACTIONS.**

(size) 1=0-3-8, 3=0-1-8  
 Max Horz 1=102(LC 11)  
 Max Uplift 1=-56(LC 8), 3=-51(LC 12)  
 Max Grav 1=355(LC 1), 3=224(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Bearing at joint(s) 3 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 3.
- 6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 3. This connection is for uplift only and does not consider lateral forces.



October 25, 2021

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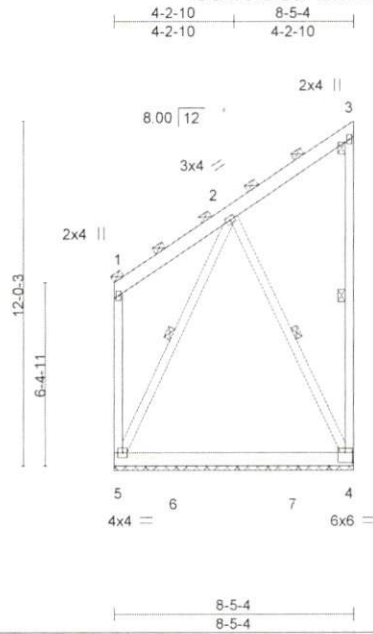


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	I48491811
2100826-2100826A	M4	GABLE	1	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8 520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:51:22 2021 Page 1  
 ID: ZcxtCb2dLGP4z35Y9kn9WHyQtsy-heXW7N9rKKG7Q4mH5qvQEJkGbpSvRS9S\_IMR2NyQrHJ



Scale = 1.77.7

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	5-0-0	TC 0.94	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.54	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.45	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-P					Weight: 96 lb	FT = 20%
	Code IRC2015/TPI2014							

**LUMBER-**

TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP DSS  
 WEBS 2x4 SP No.3 \*Except\*  
 1-5: 2x4 SP No.2 or 2x4 SPF No.2

**BRACING-**

TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals  
 (Switched from sheeted: Spacing > 2-0-0).  
 BOT CHORD Rigid ceiling directly applied or 9-0-12 oc bracing.  
 WEBS 1 Row at midpt 3-4, 2-4, 2-5

**REACTIONS.**

(size) 4=8-5-4, 5=8-5-4  
 Max Horz 5=603(LC 9)  
 Max Uplift 4=-636(LC 12)  
 Max Grav 4=1238(LC 19), 5=945(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-419/479, 3-4=-262/176, 1-5=-404/339  
 BOT CHORD 4-5=-416/436  
 WEBS 2-4=-1002/957, 2-5=-911/570

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.



October 25, 2021

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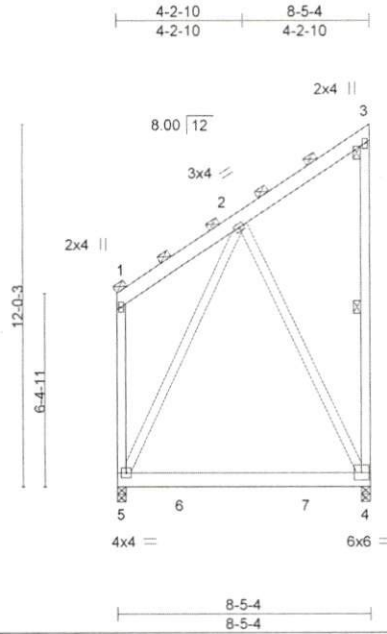
818 Soundside Road  
 Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	48491812
2100826-2100826A	MG1	MONOPITCH GIRDER	1	2	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8 520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:51:23 2021 Page 1  
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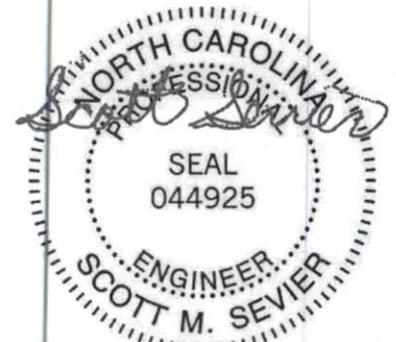
<b>LOADING</b> (psf)	<b>SPACING-</b> 5-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.79	Vert(LL) -0.12 4-5 >786 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.65	Vert(CT) -0.21 4-5 >467 180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.36	Horz(CT) 0.00 4 n/a n/a		
BCDL 10.0	Code IRC2015/TP12014	Matrix-MP		Weight: 191 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals
BOT CHORD 2x6 SP No.2	(Switched from sheeted: Spacing > 2-0-0).
WEBS 2x4 SP No.3	Rigid ceiling directly applied or 10-0-0 oc bracing.
	1 Row at midpt 3-4

**REACTIONS.** (size) 4=0-3-8, 5=0-3-8  
 Max Horz 5=603(LC 9)  
 Max Uplift 4=-636(LC 12)  
 Max Grav 4=1238(LC 19), 5=945(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-419/479, 3-4=-262/176, 1-5=-404/339  
 BOT CHORD 4-5=-416/436  
 WEBS 2-4=-1002/956, 2-5=-911/570

- NOTES-**
- 2-ply truss to be connected together with 10d (0.120"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Two H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 4. This connection is for uplift only and does not consider lateral forces.



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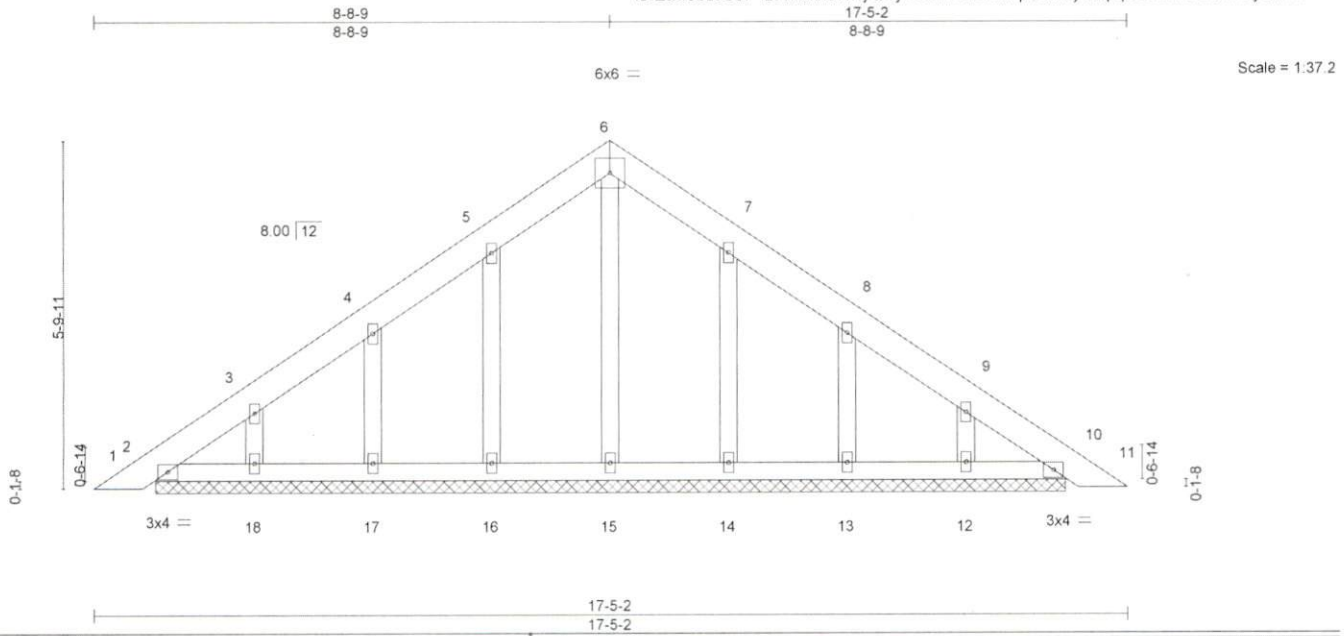
**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	I48491813
2100826-2100826A	PB1	Piggyback	2	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MITek Industries, Inc. Fri Oct 22 13:51:24 2021 Page 1  
 ID: ZcxtCb2dLGP4z35Y9kn9WHyQtsy-d0fHY3BZNxXqOvfDFyJkpqLdGOvTulS3rY7FyQrHH



<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.03	Vert(LL) 0.00 10 n/r 120	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) 0.00 10 n/r 90		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT) 0.00 10 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P		Weight: 99 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

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

**REACTIONS.** All bearings 15-4-0.  
 (lb) - Max Horz 2=-137(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 17, 13, 18, 16, 14, 12  
 Max Grav All reactions 250 lb or less at joint(s) 2, 10, 15, 17, 13, 18, 16, 14, 12

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

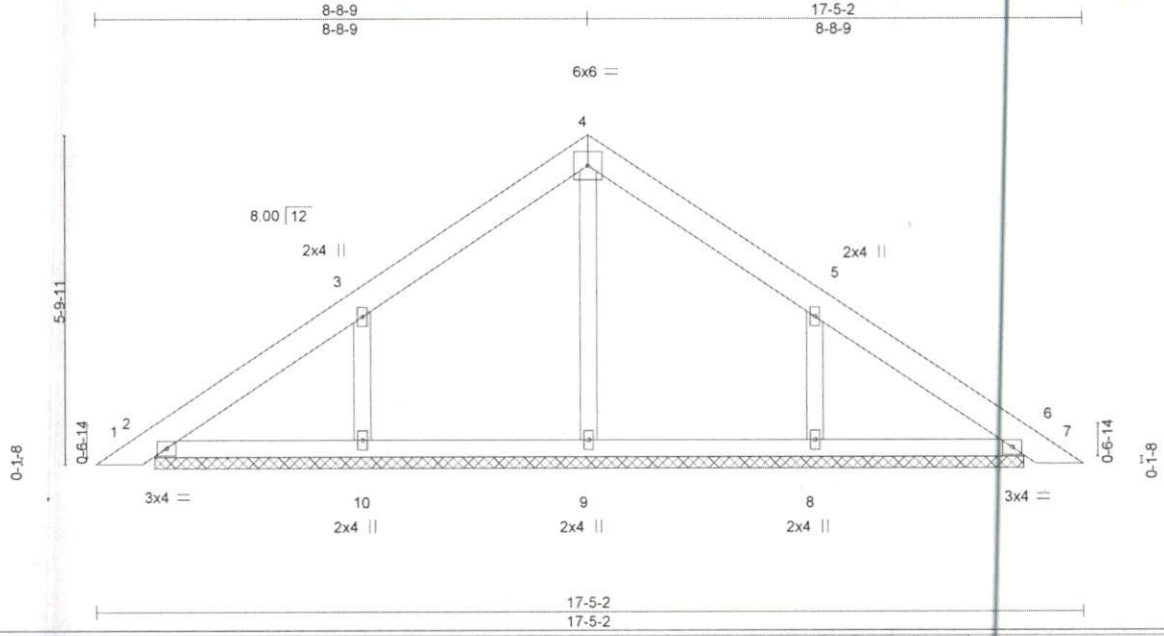
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - n/a
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.





Job	Truss	Truss Type	Qty	Ply	1393 Walker RD Castio	148491814
2100826-2100826A	PB2	Piggyback	16	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334, 8.520 s Aug 27 2021 MITek Industries, Inc. Fri Oct 22 13:51:25 2021 Page 1  
 ID: ZcxtCb2dLGP4z35Y9kn9WHyQtsy-5DCfIPCB8FfHYUsnzT7rxM\_\_1b8evrugjb5fyQrHG



Scale = 1:39.1

<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.10	Vert(LL) 0.00 7 n/r 120	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.12	Vert(CT) 0.00 7 n/r 90		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.07	Horz(CT) 0.00 6 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P		Weight: 86 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 15-4-0.  
 (lb) - Max Horz 2=-137(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 6 except 10=-160(LC 12), 8=-158(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9 except 10=395(LC 19), 8=393(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 3-10=-309/212, 5-8=-309/210

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - n/a
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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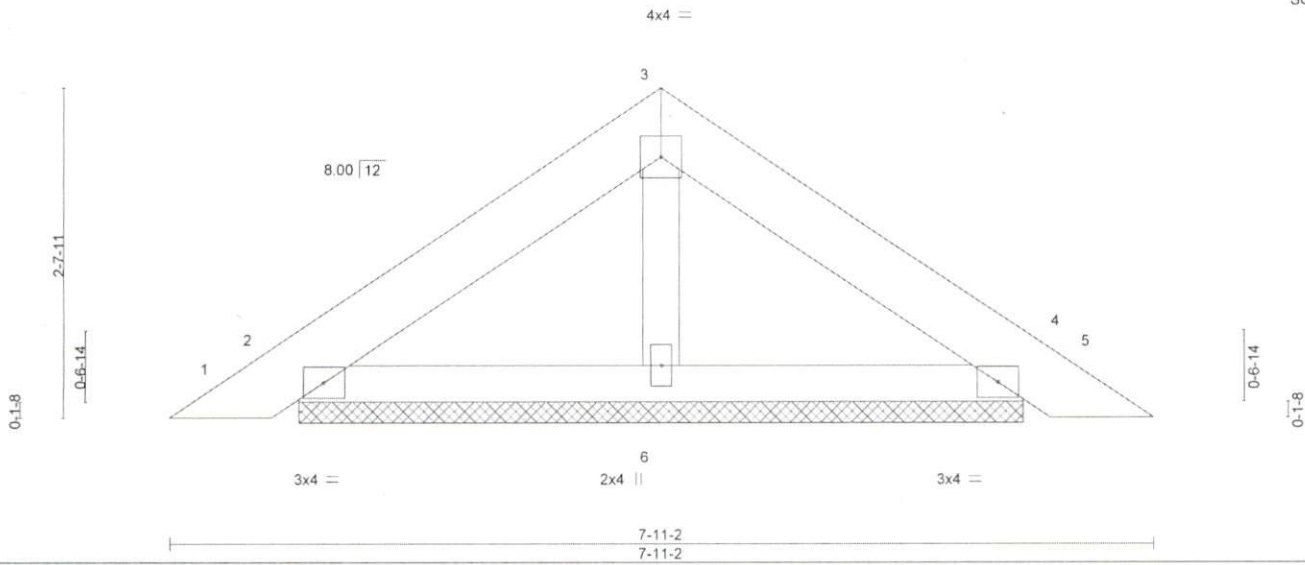
Job 2100826-2100826A	Truss PB5	Truss Type Piggyback	Qty 10	Ply 1	1393 Walker RD Castio Job Reference (optional)	148491815
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84 Components (Dunn), Dunn, NC - 28334,

8 520 s Aug 27 2021 MiTek Industries, Inc. Fri Oct 22 13:51:26 2021 Page 1  
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Scale = 1:17.8



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	0.00 5	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	0.00 5	n/r	90		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00 4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						
								Weight: 33 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.2  
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2  
OTHERS 2x4 SP No.3

**BRACING-**

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

**REACTIONS.**

(size) 2=5-10-1, 4=5-10-1, 6=5-10-1  
Max Horz 2=-59(LC 10)  
Max Uplift 2=-46(LC 12), 4=-55(LC 13)  
Max Grav 2=173(LC 1), 4=173(LC 1), 6=196(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCCL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- n/a
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



October 25, 2021

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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 ANSITPH Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

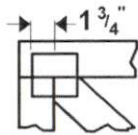


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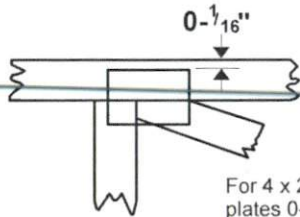


## Symbols

### PLATE LOCATION AND ORIENTATION



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



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



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

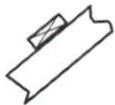
\* Plate location details available in MiTek 20/20 software or upon request.

### 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

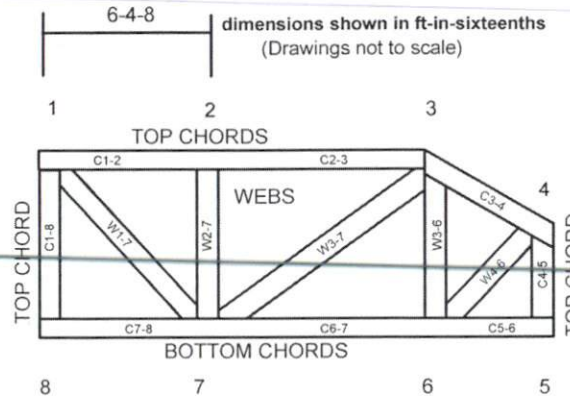


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

- ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
 DSB-89: Design Standard for Bracing.  
 BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & 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-1311, ESR-1352, ESR1988  
 ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

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MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020

## General Safety Notes

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

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