



MiTek USA, Inc. 16023 Swingley Ridge Rd Chesterfield, MO 63017 314-434-1200

Re: B220006 Lot 146 HT

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Wheeler - Waverly.

Pages or sheets covered by this seal: I49931663 thru I49931700

My license renewal date for the state of Missouri is December 31, 2023.

Missouri COA: Engineering 001193



January 28,2022

Johnson, Andrew

,Engineer

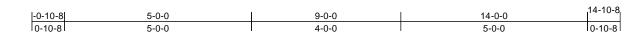
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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.

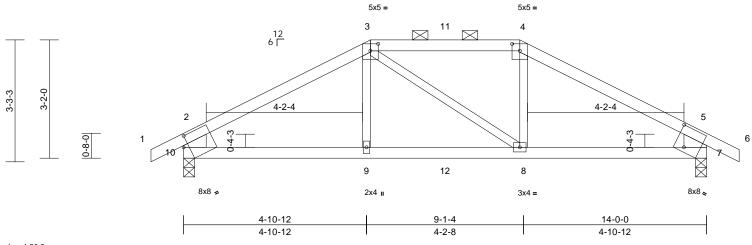
Ply Qty Job Truss Truss Type Lot 146 HT B220006 A1 Hip Girder Job Reference (optiona RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931663 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 211 ID:zEcocgpP_?gQw1xeOvrpbTyLCVu-RfC?PsB70Hq3NSgPqnL8w3uITXbGl

.553 WrCDoi





Scale = 1:30.8

Plate Offsets (X, Y): [3:0-2-8,0-2-4], [4:0-2-8,0-2-4], [7:0-3-2,0-6-8], [10:0-1-10,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.10	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.19	8-9	>845	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.14	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.09	8-9	>999	240	Weight: 46 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E *Except* 3-4:2x4 SPF

No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 10-2,7-5:2x8 SP DSS

BRACING

Structural wood sheathing directly applied or TOP CHORD 5-0-6 oc purlins, except end verticals, and

2-0-0 oc purlins (4-1-15 max.): 3-4.

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

bracing.

7=1129/0-3-8, 10=1129/0-3-8 REACTIONS (lb/size)

Max Horiz 10=-57 (LC 6)

Max Uplift 7=-250 (LC 9), 10=-250 (LC 8)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/37, 2-3=-1626/358, 3-4=-1332/349,

4-5=-1627/358, 5-6=0/37, 2-10=-1030/267,

5-7=-1030/267

BOT CHORD 9-10=-276/1344, 8-9=-276/1331,

7-8=-249/1345

WEBS 3-9=-1/367, 3-8=-70/72, 4-8=-14/395

NOTES

- Unbalanced roof live loads have been considered for 1) this design
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 250 lb uplift at joint 10 and 250 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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) 102 lb down and 80 lb up at 5-0-0, and 107 lb down and 78 lb up at 7-0-0, and 102 lb down and 80 lb up at 9-0-0 on top chord, and 306 lb down and 71 lb up at 5-0-0, and 50 lb down at 7-0-0, and 306 lb down and 71 lb up at 8-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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

Plate Increase=1.15

Uniform Loads (lb/ft)

Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 5-6=-70,

7-10=-20

Concentrated Loads (lb)

Vert: 4=-79 (F), 9=-306 (F), 8=-306 (F), 3=-79 (F),

11=-79 (F), 12=-39 (F)



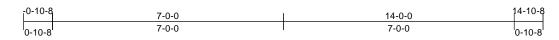


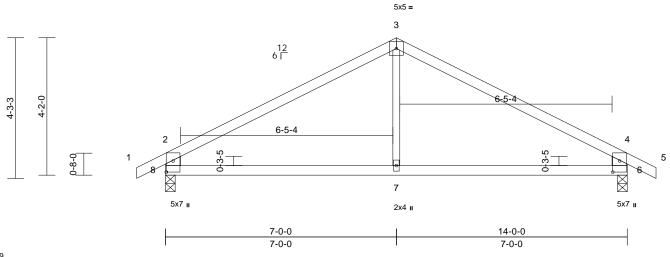


Ply Truss Type Qty Job Truss Lot 146 HT B220006 Α2 Common Job Reference (optiona RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931664 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 1.553 ID:GaXR44uoL9ZRF6z_ltTSOyyLCVn-RfC?PsB70Hq3NSgPqnL8w3ulTXbG WrCDo





Scale = 1:34.9

Plate Offsets (X, Y): [6:0-4-1,0-2-8], [8:0-4-1,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)		Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.04	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.09	6-7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.03	7-8	>999	240	Weight: 40 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2

2x6 SPF No.2 *Except* 7-3:2x3 SPF No.2 WEBS

BRACING

TOP CHORD Structural wood sheathing directly applied or

5-9-9 oc purlins, except end verticals. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (lb/size) 6=687/0-3-8, 8=687/0-3-8

Max Horiz 8=-69 (LC 6)

Max Uplift 6=-101 (LC 9), 8=-101 (LC 8) **FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/35, 2-3=-772/105, 3-4=-772/105,

4-5=0/35, 2-8=-630/150, 4-6=-630/150

BOT CHORD 7-8=-20/586, 6-7=-20/586

WEBS 3-7=0/296

NOTES

- Unbalanced roof live loads have been considered for 1) this design
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 101 lb uplift at joint 8 and 101 lb uplift at joint 6.

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

LOAD CASE(S) Standard





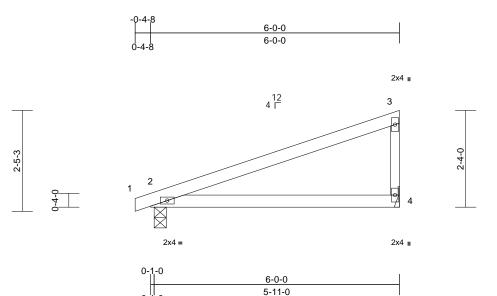


Ply Qty Job Truss Truss Type Lot 146 HT B220006 В1 Monopitch Job Reference (optional

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931665 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 15 3 ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGK\



Scale = 1:27.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.07	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.13	2-4	>526	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 16 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 2x3 SPF No.2 WEBS

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 (lb/size) 2=297/0-3-8, 4=257/ Mechanical

Max Horiz 2=91 (LC 5)

Max Uplift 2=-65 (LC 4), 4=-55 (LC 8) (lb) - Maximum Compression/Maximum

FORCES

Tension 1-2=0/6, 2-3=-79/52, 3-4=-200/89

TOP CHORD BOT CHORD 2-4=-28/22

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 4 and 65 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 28,2022



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 chorembers 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

AMSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

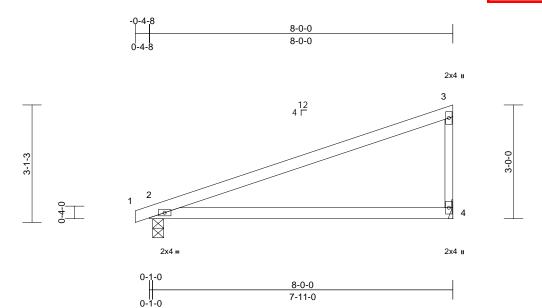


16023 Swingley Ridge Rd Chesterfield, MO 63017

Ply Truss Type Qty Job Truss Lot 146 HT B220006 B2 Monopitch 3 Job Reference (optional RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931666 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 15 3 ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGK\



Scale = 1:30.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.17	2-4	>553	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.34	2-4	>276	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 21 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E **BOT CHORD** 2x4 SPF 2100F 1.8E 2x3 SPF No.2 WEBS

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 (lb/size) 2=386/0-3-8, 4=348/ Mechanical

Max Horiz 2=121 (LC 5)

Max Uplift 2=-79 (LC 4), 4=-74 (LC 8) (lb) - Maximum Compression/Maximum

Tension

1-2=0/6, 2-3=-105/70, 3-4=-270/121

TOP CHORD BOT CHORD 2-4=-38/29

NOTES

FORCES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 4 and 79 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 28,2022



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 chorembers 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

AMSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



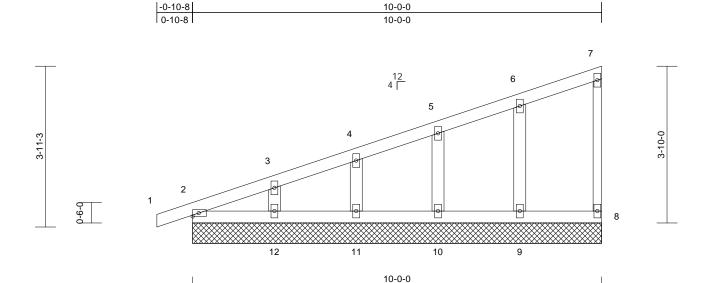
16023 Swingley Ridge Rd Chesterfield, MO 63017

Ply Qty Job Truss Truss Type Lot 146 HT B220006 C1 **GABLE** Job Reference (optional

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931667 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 1.553 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK\



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 35 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 2x3 SPF No.2 WEBS 2x4 SPF No.2 OTHERS

BRACING

TOP CHORD Structural wood sheathing directly applied or

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

bracing.

REACTIONS (lb/size)

2=150/10-0-0, 8=69/10-0-0, 9=194/10-0-0, 10=177/10-0-0, 11=180/10-0-0, 12=182/10-0-0

Max Horiz 2=158 (LC 5)

Max Uplift 2=-22 (LC 4), 8=-16 (LC 5), 9=-46 (LC 4), 10=-42 (LC 8), 11=-44 (LC

4), 12=-52 (LC 8)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/6, 2-3=-129/27, 3-4=-102/21, 4-5=-86/21, 5-6=-76/22, 6-7=-61/29,

7-8=-53/22

BOT CHORD 2-12=-50/37, 11-12=-50/37, 10-11=-50/37,

9-10=-50/37, 8-9=-50/37

3-12=-140/77, 4-11=-141/67, 5-10=-138/68, WEBS

6-9=-151/62

NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable studs spaced at 2-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 8, 22 lb uplift at joint 2, 52 lb uplift at joint 12, 44 lb uplift at joint 11, 42 lb uplift at joint 10 and 46 lb uplift at joint
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 28,2022





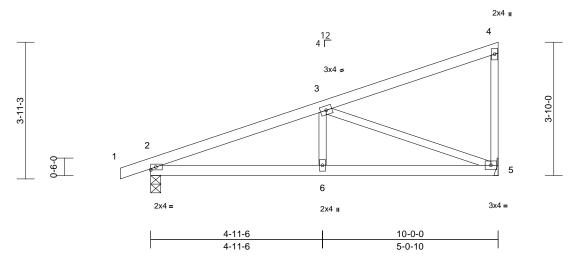
Ply Truss Type Qty Job Truss Lot 146 HT B220006 C2 9 Monopitch Job Reference (optional

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931668 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tu Jan 2 1593 ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGK\





Scale = 1:33.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.02	2-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.04	5-6	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.02	2-6	>999	240	Weight: 33 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 2x3 SPF No.2 WEBS

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 (lb/size) 2=514/0-3-8, 5=435/ Mechanical

Max Horiz 2=158 (LC 5)

Max Uplift 2=-115 (LC 4), 5=-94 (LC 8)

FORCES (lb) - Maximum Compression/Maximum

Tension TOP CHORD

1-2=0/6, 2-3=-782/113, 3-4=-109/21, 4-5=-141/57

BOT CHORD 2-6=-134/682, 5-6=-134/682 **WEBS** 3-6=0/228, 3-5=-714/178

NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 94 lb uplift at joint 5 and 115 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 28,2022





Ply Job Truss Truss Type Qty Lot 146 HT B220006 C3 Monopitch Structural Gable Job Reference (optional

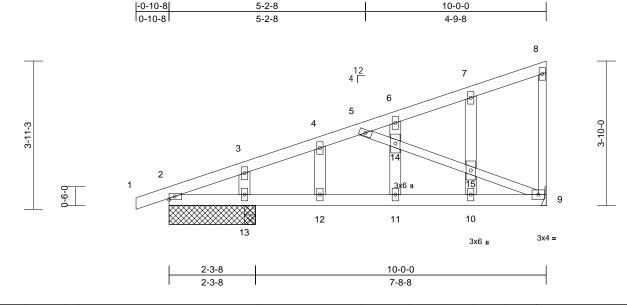
S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931669 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGK

10:553

RELEASE FOR CONSTRUCTION



Scale = 1:30.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.03	10-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.05	10-11	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.01	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	10-11	>999	240	Weight: 38 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 2x4 SPF No.2 **BOT CHORD** 2x3 SPF No.2 WEBS 2x4 SPF No.2 OTHERS

BRACING

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins, except end verticals.

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

bracing.

REACTIONS (lb/size) 2=344/2-3-8, 9=401/ Mechanical, 13=207/2-3-8

Max Horiz 2=158 (LC 5)

Max Uplift 2=-72 (LC 4), 9=-84 (LC 8), 13=-53

(LC 8)

FORCES (lb) - Maximum Compression/Maximum

Tension TOP CHORD

1-2=0/6, 2-3=-591/51, 3-4=-587/83,

4-5=-526/94, 5-6=-112/0, 6-7=-78/5,

7-8=-60/29, 8-9=-100/32

2-13=-94/524, 12-13=-94/524, **BOT CHORD**

11-12=-94/524, 10-11=-94/524, 9-10=-94/524 WEBS 5-14=-536/134, 14-15=-540/134,

9-15=-557/138, 3-13=-147/77, 4-12=0/87, 6-14=0/83, 11-14=0/90, 7-15=-100/51,

10-15=-53/42

NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) 1) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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 studs spaced at 2-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 84 lb uplift at joint 9, 72 lb uplift at joint 2 and 53 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard







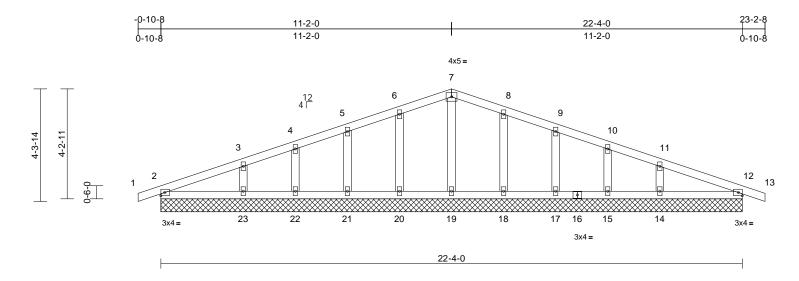
Ply Job Truss Truss Type Qty Lot 146 HT B220006 D1 Common Supported Gable Job Reference (optional

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931670 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKV

1):55.3 rCDoi7J



Scale = 1:44.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 77 lb	FT = 10%

LUMBER

2x4 SPF No.2 TOP CHORD **BOT CHORD** 2x4 SPF No.2 2x4 SPF No.2 **OTHERS**

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 (lb/size)

2=191/22-4-0, 12=191/22-4-0, 14=275/22-4-0, 15=145/22-4-0, 17=187/22-4-0, 18=186/22-4-0, 19=163/22-4-0, 20=186/22-4-0, 21=187/22-4-0, 22=145/22-4-0, 23=275/22-4-0

Max Horiz 2=-71 (LC 9)

Max Uplift 2=-45 (LC 4), 12=-54 (LC 5),

14=-68 (LC 9), 15=-36 (LC 5), 17=-44 (LC 9), 18=-46 (LC 9), 20=-46 (LC 8), 21=-44 (LC 8),

22=-36 (LC 4), 23=-70 (LC 8) Max Grav

2=191 (LC 1), 12=191 (LC 1), 14=275 (LC 22), 15=145 (LC 22), 17=187 (LC 1), 18=189 (LC 22), 19=163 (LC 1), 20=189 (LC 21), 21=187 (LC 1), 22=145 (LC 21), 23=275 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum

Tension

1-2=0/6, 2-3=-81/59, 3-4=-47/60, 4-5=-28/75, TOP CHORD 5-6=-29/92, 6-7=-31/110, 7-8=-31/106,

8-9=-29/77, 9-10=-28/47, 10-11=-35/28, 11-12=-56/38, 12-13=0/6

BOT CHORD 2-23=-3/57, 22-23=-3/57, 21-22=-3/57, 20-21=-3/57, 19-20=-3/57, 18-19=-3/57,

17-18=-3/57, 15-17=-3/57, 14-15=-3/57, 12-14=-3/57

WEBS

7-19=-123/0, 6-20=-150/70, 5-21=-144/69, 4-22=-117/57, 3-23=-205/101, 8-18=-150/69, 9-17=-144/69, 10-15=-117/57, 11-14=-205/99

NOTES

Unbalanced roof live loads have been considered for 1)

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 2, 46 lb uplift at joint 20, 44 lb uplift at joint 21, 36 lb uplift at joint 22, 70 lb uplift at joint 23, 46 lb uplift at joint 18, 44 lb uplift at joint 17, 36 lb uplift at joint 15, 68 lb uplift at joint 14 and 54 lb uplift at joint 12.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard





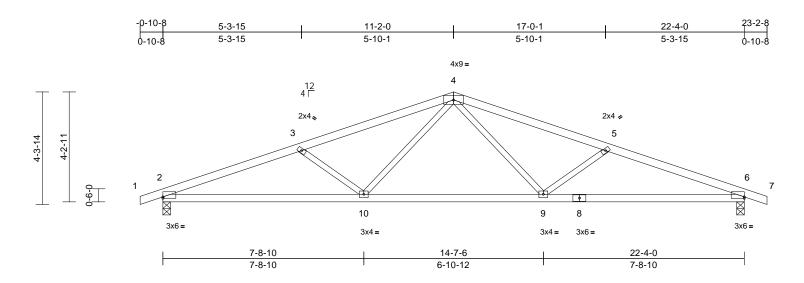


Ply Truss Type Qty Job Truss Lot 146 HT B220006 D2 Common 5 Job Reference (optional RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931671 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGK\

10:553



Scale = 1:44.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	-0.12	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.25	6-9	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.07	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	80.0	9-10	>999	240	Weight: 68 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 2x3 SPF No.2 WEBS

BRACING

TOP CHORD Structural wood sheathing directly applied or

3-7-2 oc purlins.

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

bracing.

REACTIONS (lb/size) 2=1063/0-3-8, 6=1063/0-3-8

Max Horiz 2=71 (LC 8)

Max Uplift 2=-189 (LC 4), 6=-189 (LC 5) **FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/6, 2-3=-2232/355, 3-4=-1909/259,

4-5=-1909/260, 5-6=-2232/355, 6-7=0/6

BOT CHORD 2-10=-333/2049, 9-10=-127/1406,

6-9=-280/2049

WEBS 4-9=-59/541, 5-9=-418/221, 4-10=-58/541,

3-10=-418/221

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

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 189 lb uplift at joint 2 and 189 lb uplift at joint 6.

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

LOAD CASE(S) Standard



January 28,2022



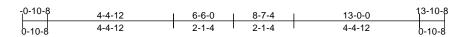


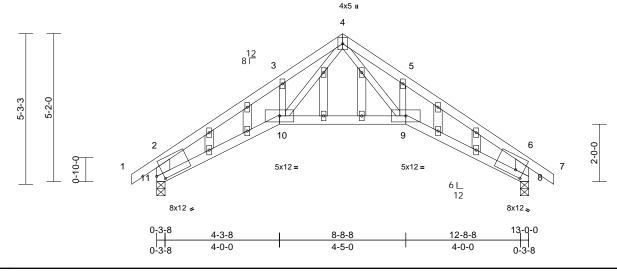
Ply Job Truss Truss Type Qty Lot 146 HT B220006 E1 **GABLE** Job Reference (optiona RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931672 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. T ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGK

nu Jan 2 rCDoi7





Scale = 1:40.3

Loading	(psf)	Spacing	2-0-0	csı		DEFL	in	(loc)	I/defI	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.16	9-10	>968	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.29	9-10	>511	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.27	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	9-10	>999	240	Weight: 55 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E

BOT CHORD 2x4 SPF No.2

2x3 SPF No.2 *Except* 11-2,8-6:2x6 SP DSS WEBS

OTHERS 2x4 SPF No.2

BRACING

FORCES

TOP CHORD

Structural wood sheathing directly applied or TOP CHORD 5-3-11 oc purlins, except end verticals.

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

bracing.

REACTIONS (lb/size) 8=642/0-3-8, 11=642/0-3-8

Max Horiz 11=-154 (LC 6)

Max Uplift 8=-88 (LC 9), 11=-88 (LC 8) (lb) - Maximum Compression/Maximum

Tension

1-2=0/43, 2-3=-1287/152, 3-4=-1079/272,

4-5=-1069/195, 5-6=-1287/84, 6-7=0/43,

2-11=-1009/165, 6-8=-1009/102

BOT CHORD 10-11=-127/1104, 9-10=0/624, 8-9=-11/1029

4-9=-180/520. 5-9=-31/204. 4-10=-219/592. **WEBS**

3-10=0/172

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- 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.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 11, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 88 lb uplift at joint 11 and 88 lb uplift at joint 8.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 28,2022





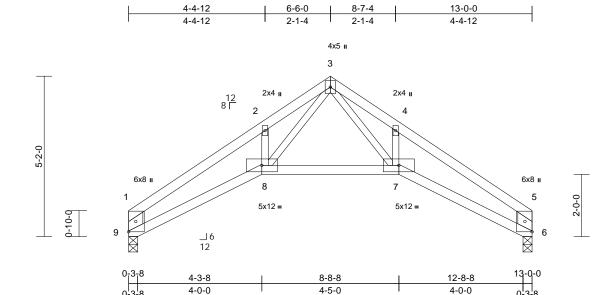
Ply Job Truss Truss Type Qty Lot 146 HT B220006 E2 Roof Special 5

S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931673 LEE'S SUMMIT. MISSOURI Job Reference (optional

RELEASE FOR CONSTRUCTION

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. T ju Jan 2 1 1553 ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKV /rCDoi7J



Scale = 1:37.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.25	7-8	>598	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.46	7-8	>325	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.41	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.14	7-8	>999	240	Weight: 44 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2

2x3 SPF No.2 *Except* 9-1,6-5:2x6 SP DSS WEBS

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-2-2 oc purlins, except end verticals.

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

bracing.

REACTIONS (lb/size) 6=564/0-3-8, 9=564/0-3-8

Max Horiz 9=-135 (LC 4)

Max Uplift 6=-62 (LC 9), 9=-62 (LC 8)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-1280/169, 2-3=-1096/288,

3-4=-1096/228, 4-5=-1280/101, 1-9=-899/147. 5-6=-899/100

BOT CHORD 8-9=-153/1074, 7-8=-3/606, 6-7=-39/1026 WEBS 3-7=-197/549, 4-7=-50/195, 3-8=-229/612,

2-8=-35/172

NOTES

- Unbalanced roof live loads have been considered for
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 9, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 62 lb uplift at joint 9 and 62 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard







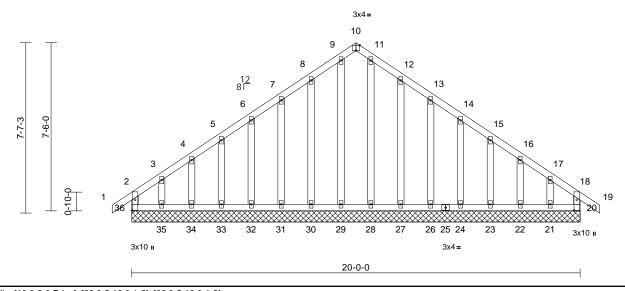
Truss Type Job Truss Qty Ply Lot 146 HT B220006 E3 **GABLE** Job Reference (optional

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931674 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 10:554 ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGK\





Scale = 1:51.4

Plate Offsets (X, Y): [10:0-2-0,Edge], [20:0-5-10,0-1-8], [36:0-5-10,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	20	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 115 lb	FT = 10%

LUMBER	
TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2
BRACING	

TOP CHORD

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

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

REACTIONS (lb/size) 20=148/20-0-0, 21=83/20-0-0, 22=127/20-0-0, 23=119/20-0-0, 24=120/20-0-0, 26=120/20-0-0, 27=119/20-0-0, 28=122/20-0-0,

29=122/20-0-0, 30=119/20-0-0, 31=120/20-0-0, 32=120/20-0-0, 33=119/20-0-0, 34=127/20-0-0, 35=83/20-0-0, 36=148/20-0-0

Max Horiz 36=-213 (LC 6) 20=-53 (LC 5), 21=-120 (LC 9), Max Uplift

22=-31 (LC 9), 23=-50 (LC 9), 24=-45 (LC 9), 26=-47 (LC 9), 27=-66 (LC 9), 30=-64 (LC 8), 31=-47 (LC 8), 32=-45 (LC 8), 33=-51 (LC 8), 34=-28 (LC 8),

35=-133 (LC 8), 36=-96 (LC 4) Max Grav 20=166 (LC 15), 21=137 (LC 16), 22=127 (LC 22), 23=125 (LC 16), 24=124 (LC 16), 26=125 (LC 16), 27=128 (LC 16), 28=135 (LC 17), 29=146 (LC 18), 30=125 (LC 15), 31=125 (LC 15), 32=124 (LC 15), 33=126 (LC 15), 34=127 (LC 21),

35=158 (LC 15), 36=201 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-36=-162/77, 1-2=0/40, 2-3=-161/143, 3-4=-110/109, 4-5=-102/100, 5-6=-89/100, 6-7=-76/125, 7-8=-64/150, 8-9=-54/184, 9-10=-39/137, 10-11=-35/133,

11-12=-34/165, 12-13=-31/128, 13-14=-40/103, 14-15=-49/79, 15-16=-59/60, 16-17=-71/69, 17-18=-129/94, 18-19=0/40,

18-20=-136/43 **BOT CHORD** 35-36=-93/121, 34-35=-93/121,

33-34=-93/121, 32-33=-93/121, 31-32=-93/121, 30-31=-93/121, 29-30=-93/121, 28-29=-93/121, 27-28=-93/121, 26-27=-93/121, 24-26=-93/121, 23-24=-93/121,

22-23=-93/121, 21-22=-93/121, 20-21=-93/121

3-35=-104/103, 4-34=-99/55, 5-33=-98/64, 6-32=-98/62, 7-31=-98/63, 8-30=-98/80, 9-29=-119/9, 11-28=-108/0, 12-27=-101/82, 13-26=-98/63, 14-24=-98/62, 15-23=-98/64 16-22=-99/57, 17-21=-94/95

NOTES

WEBS

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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 1-4-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 96 lb uplift at joint 36, 53 lb uplift at joint 20, 133 lb uplift at joint 35, 28 lb uplift at joint 34, 51 lb uplift at joint 33, 45 lb uplift at joint 32, 47 lb uplift at joint 31, 64 lb uplift at joint 30, 66 lb uplift at joint 27, 47 lb uplift at joint 26, 45 lb uplift at joint 24, 50 lb uplift at joint 23, 31 lb uplift at joint 22 and 120 lb uplift at joint 21.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 28,2022

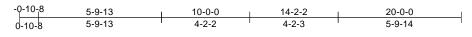


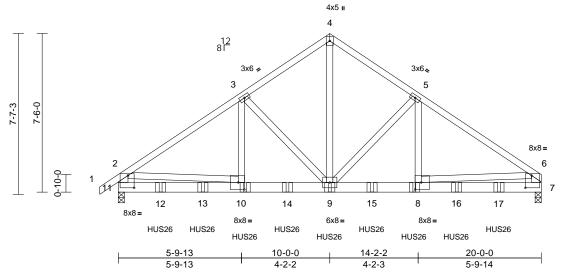


Job Truss Truss Type Qty Ply Lot 146 HT **COMMON GIRDER** B220006 E4 4 Job Reference (optional RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931675 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 1):554 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK\





Scale = 1:54.5

Plate Offsets (X, Y): [6:0-3-8,0-7-0], [8:0-3-8,0-4-0], [10:0-3-8,0-4-0], [11:0-3-8,0-7-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.06	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.11	8-9	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.55	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	7-8	>999	240	Weight: 475 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x6 SP 2400F 2.0E

2x4 SPF No.2 *Except* 11-2,7-6:2x6 SP DSS

BRACING

WEBS

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

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

bracing.

REACTIONS (lb/size) 7=8000/0-3-8, 11=8077/0-3-8

Max Horiz 11=205 (LC 7)

Max Uplift 7=-402 (LC 9), 11=-280 (LC 8)

Max Grav 7=8050 (LC 16), 11=8362 (LC 15)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/43, 2-3=-10231/334, 3-4=-7483/331, 4-5=-7487/331, 5-6=-10281/386,

2-11=-6433/283, 6-7=-6420/277

BOT CHORD 10-11=-289/3670, 9-10=-288/8523, 8-9=-246/8477, 7-8=-250/3157

4-9=-278/7959, 5-9=-3354/297,

WFBS 5-8=-106/3646, 3-9=-3272/226,

3-10=-35/3588, 2-10=-74/4972, 6-8=-52/5479

NOTES

- 4-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 - Top chords connected as follows: 2x4 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
 - Bottom chords connected as follows: 2x6 2 rows staggered at 0-4-0 oc.
 - Web connected as follows: 2x4 1 row at 0-9-0 oc. Attach BC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

- Unbalanced roof live loads have been considered for this design
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 280 lb uplift at joint 11 and 402 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802 10 2 and referenced standard ANSI/TPI 1
- Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss) or equivalent spaced at 6-0-0 oc max. starting at 2-0-0 from the left end to 14-0-0 to connect truss(es) to back face of bottom chord.
- 10) Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent spaced at 8-0-0 oc max. starting at 6-0-0 from the left end to 18-0-0 to connect truss(es) to back face of bottom chord.
- 11) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

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

Uniform Loads (lb/ft)

Vert: 1-2=-70, 2-4=-70, 4-6=-70, 7-11=-20

Concentrated Loads (lb)

Vert: 9=-1583 (B), 8=-1587 (B), 10=-1583 (B), 12=-1578 (B), 13=-1578 (B), 14=-1583 (B), 15=-1587 (B), 16=-1583 (B), 17=-1578 (B)



January 28,2022



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

AMSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

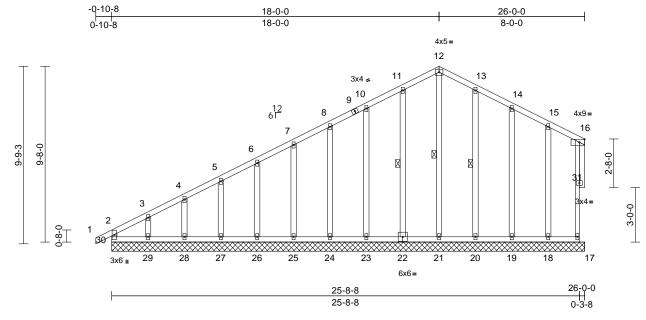


16023 Swingley Ridge Rd Chesterfield, MO 63017

Ply Job Truss Truss Type Qty Lot 146 HT B220006 G1 Common Supported Gable Job Reference (optional RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931676 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 11.554 ID:IDtRPq1?Lc2VCzhL7BaNIUyf3yz-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK\/rCDoi7J



Scale	 1.63	3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	17	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 148 lb	FT = 10%

LUMBER	
--------	--

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2

2x4 SPF No.2 *Except* 16-17:2x3 SPF No.2 WEBS

2x4 SPF No.2 OTHERS

BRACING

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

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

bracing. WEBS 1 Row at midpt

12-21, 11-22, 13-20 REACTIONS (lb/size) 17=64/26-0-0, 18=177/26-0-0, 19=180/26-0-0, 20=187/26-0-0,

21=167/26-0-0, 22=187/26-0-0, 23=179/26-0-0, 24=180/26-0-0 25=180/26-0-0, 26=180/26-0-0, 27=179/26-0-0, 28=184/26-0-0

29=164/26-0-0, 30=161/26-0-0

Max Horiz 30=287 (LC 5)

Max Uplift 17=-43 (LC 4), 18=-59 (LC 9), 19=-57 (LC 9), 20=-53 (LC 9), 21=-14 (LC 7), 22=-52 (LC 8), 23=-56 (LC 8), 24=-54 (LC 8),

25=-54 (LC 8), 26=-53 (LC 8), 27=-58 (LC 8), 28=-37 (LC 8), 29=-128 (LC 8), 30=-51 (LC 4)

Max Grav 17=89 (LC 16), 18=177 (LC 22)

19=180 (LC 22), 20=189 (LC 22), 21=188 (LC 15), 22=190 (LC 21), 23=179 (LC 21), 24=180 (LC 1),

25=180 (LC 21), 26=180 (LC 1), 27=179 (LC 21), 28=184 (LC 1), 29=166 (LC 15), 30=225 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-30=-189/53, 1-2=0/32, 2-3=-259/99

3-4=-211/92, 4-5=-195/94, 5-6=-179/107 6-7=-164/120, 7-8=-149/134, 8-10=-135/147,

10-11=-120/161, 11-12=-102/172,

12-13=-98/166, 13-14=-99/141 14-15=-95/110, 15-16=-114/96, 16-17=-99/71

29-30=-76/57, 28-29=-76/57, 27-28=-76/57, 26-27=-76/57, 25-26=-76/57, 24-25=-76/57, 23-24=-76/57, 21-23=-76/57, 20-21=-76/57,

19-20=-76/57, 18-19=-76/57, 17-18=-76/57 WEBS 12-21=-148/53 11-22=-150/76

10-23=-139/80, 8-24=-140/78, 7-25=-140/78, 6-26=-140/77, 5-27=-139/80, 4-28=-143/69,

3-29=-126/119, 13-20=-150/78, 14-19=-140/78, 15-18=-138/99

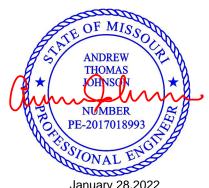
NOTES

BOT CHORD

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 51 lb uplift at joint 30, 43 lb uplift at joint 17, 14 lb uplift at joint 21, 52 lb uplift at joint 22, 56 lb uplift at joint 23, 54 lb uplift at joint 24, 54 lb uplift at joint 25, 53 lb uplift at joint 26, 58 lb uplift at joint 27, 37 lb uplift at joint 28, 128 lb uplift at joint 29, 53 lb uplift at joint 20, 57 lb uplift at joint 19 and 59 lb uplift at joint 18.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



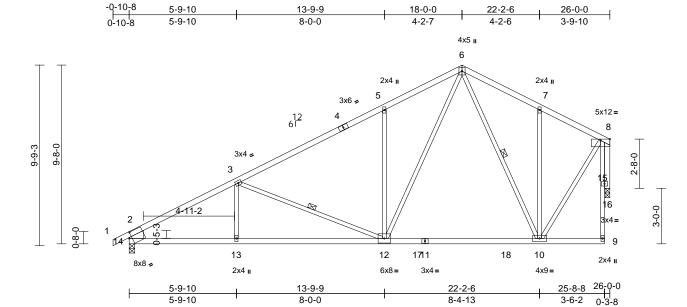


Ply Job Truss Truss Type Qty Lot 146 HT B220006 G2 Roof Special 6 Job Reference (optiona RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931677 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGK

rCDoi7



Scale = 1:62.3 Plate Offsets (X, Y): [14:0-1-13,0-3-8]

Loading	(psf)	Spacing	2-0-0	csı		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.Ó	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.22	10-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.37	12-13	>830	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.16	16	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.12	12-13	>999	240	Weight: 115 lb	FT = 10%

LUMBER

2x4 SPF No.2 *Except* 1-4:2x4 SPF 2100F TOP CHORD

1.8E

BOT CHORD 2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 14-2:2x10 SP DSS

OTHERS 2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or

3-8-6 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 2-2-0 oc

bracing.

WEBS 1 Row at midpt 3-12, 6-10

REACTIONS (lb/size) 14=1237/0-3-8. 16=1121/0-3-2

14=245 (LC 5) Max Horiz

Max Uplift 14=-181 (LC 8), 16=-137 (LC 8) Max Grav 14=1275 (LC 2), 16=1202 (LC 2)

FORCES (lb) - Maximum Compression/Maximum

Tension TOP CHORD

1-2=0/39, 2-3=-1910/250, 3-5=-1374/188,

5-6=-1361/332, 6-7=-706/166, 7-8=-657/112,

9-15=-3/28, 8-15=-3/28, 2-14=-1129/200

BOT CHORD 13-14=-375/1624, 12-13=-375/1624, 10-12=-58/715, 9-10=-45/68

WEBS 8-10=-98/995, 3-13=0/228, 3-12=-524/220,

5-12=-519/272, 6-10=-378/102, 7-10=-340/183, 6-12=-277/1085,

8-16=-1207/138

NOTES

- Unbalanced roof live loads have been considered for
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 16 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 181 lb uplift at joint 14 and 137 lb uplift at joint 16.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard







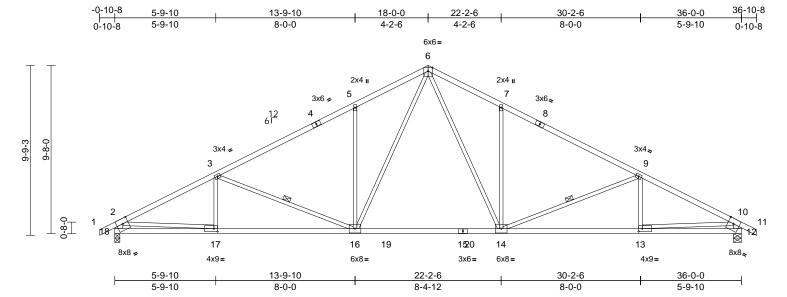
Job	Truss	Truss Type	Qty	Ply	Lot 146 HT
B220006	G3	Common	3	1	Job Reference (or

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931678 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

optional Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 11:554 ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGK\

rCDoi7J



Scale = 1:66.2

Plate Offsets (X, Y): [12:0-3-12,Edge], [13:0-2-8,0-2-0], [17:0-2-8,0-2-0], [18:0-3-12,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.26	14-16	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.43	14-16	>996	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.08	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.11	16-17	>999	240	Weight: 145 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF 2100F 1.8E

2x3 SPF No.2 *Except* 18-2,12-10:2x6 SPF WEBS

BRACING

Structural wood sheathing directly applied, TOP CHORD

except end verticals.

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

bracing.

WEBS 1 Row at midpt 9-14, 3-16

REACTIONS (lb/size) 12=1677/0-5-8, 18=1677/0-3-8

Max Horiz 18=-150 (LC 9)

Max Uplift 12=-224 (LC 9), 18=-224 (LC 8)

Max Grav 12=1743 (LC 2), 18=1743 (LC 2)

FORCES (lb) - Maximum Compression/Maximum

Tension 1-2=0/35, 2-3=-2882/343, 3-5=-2373/287, TOP CHORD

5-6=-2351/431, 6-7=-2351/431,

7-9=-2373/287, 9-10=-2882/343, 10-11=0/35,

2-18=-1638/249, 10-12=-1638/248 17-18=-226/675, 16-17=-383/2516,

14-16=-63/1605, 13-14=-233/2516, 12-13=-89/598

WFBS 6-14=-284/1056, 7-14=-500/276,

9-14=-572/220, 9-13=-42/164 6-16=-284/1056, 5-16=-500/276, 3-16=-572/220, 3-17=-42/164,

2-17=-157/1925, 10-13=-144/1925

NOTES

BOT CHORD

- Unbalanced roof live loads have been considered for
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 224 lb uplift at joint 18 and 224 lb uplift at joint 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard







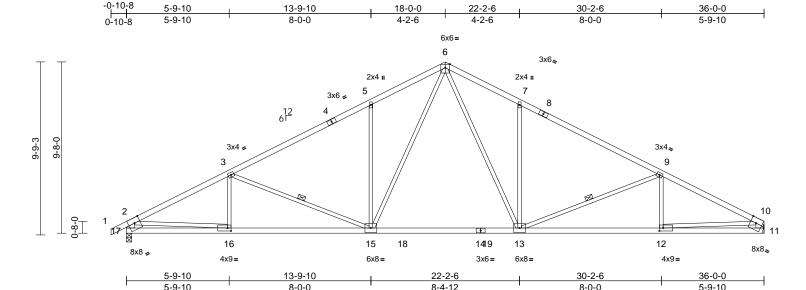
Job	Truss	Truss Type	Qty	Ply	Lot 146 HT
B220006	G4	Common	3	1	Job Reference (optional)

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931679 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 21 ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGK\

10:554



Scale = 1:65.1

Plate Offsets (X, Y): [11:0-3-12,Edge], [12:0-2-8,0-2-0], [16:0-2-8,0-2-0], [17:0-3-12,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.27	13-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.43	13-15	>994	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.08	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	15-16	>999	240	Weight: 144 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF 2100F 1.8E

2x3 SPF No.2 *Except* 17-2,11-10:2x6 SPF WEBS

BRACING

Structural wood sheathing directly applied, TOP CHORD

except end verticals.

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

bracing.

WEBS 1 Row at midpt 9-13, 3-15

REACTIONS (lb/size) 11=1598/ Mechanical,

17=1678/0-3-8 Max Horiz 17=123 (LC 5)

Max Uplift 11=-19 (LC 9), 17=-31 (LC 8) Max Grav 11=1679 (LC 2), 17=1744 (LC 2)

FORCES (lb) - Maximum Compression/Maximum

TOP CHORD

Tension

1-2=0/35, 2-3=-2884/46, 3-5=-2375/55,

5-6=-2353/149, 6-7=-2353/150, 7-9=-2377/55, 9-10=-2890/47,

2-17=-1639/57, 10-11=-1572/45 **BOT CHORD** 16-17=-107/674, 15-16=-80/2566,

13-15=0/1618, 12-13=0/2530, 11-12=-15/514

WEBS 6-13=-117/1074, 7-13=-495/165, 9-13=-586/111, 9-12=-52/158,

6-15=-117/1073, 5-15=-500/166, 3-15=-572/109, 3-16=-42/164, 2-16=0/1927,

10-12=0/2024

NOTES

- Unbalanced roof live loads have been considered for
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 11 and 31 lb uplift at joint 17.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 28,2022



Ply Job Truss Truss Type Qty Lot 146 HT B220006 G5 Roof Special 3 Job Reference (optiona RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931680 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGK

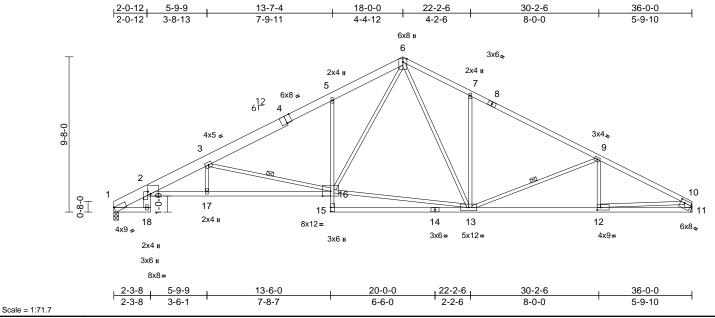


Plate Offsets (X, Y): [1:Edge,0-0-1], [2:0-5-14,Edge], [2:0-1-10,0-2-2], [4:0-4-0,Edge], [11:0-3-0,0-2-0], [12:0-2-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.28	16-17	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.58	16-17	>743	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.31	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.15	16-17	>999	240	Weight: 172 lb	FT = 10%

LUMBER

BOT CHORD

2x4 SPF No.2 *Except* 4-6:2x6 SPF No.2, TOP CHORD

1-4:2x8 SP DSS

2x4 SPF No.2 *Except* 2-16:2x4 SPF 2100F

1.8E. 5-15:2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except* 18-2,11-10:2x6 SPF

No.2

BRACING

TOP CHORD Structural wood sheathing directly applied,

except end verticals.

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

bracing. **WEBS**

1 Row at midpt 3-16, 9-13

REACTIONS (lb/size) 1=1603/0-3-8, 11=1603/

Mechanical

Max Horiz 1=116 (LC 5)

Max Uplift 1=-19 (LC 8), 11=-19 (LC 9) **FORCES** (lb) - Maximum Compression/Maximum

TOP CHORD

1-2=-860/60, 2-3=-3967/81, 3-5=-2652/57,

5-6=-2598/151, 6-7=-2231/146,

7-9=-2270/53, 9-10=-2774/49, 10-11=-1537/46

BOT CHORD 1-18=0/0, 2-17=-130/3819, 16-17=-126/3814,

15-16=0/153. 5-16=-458/158. 13-15=0/93.

12-13=-1/2417, 11-12=-13/447

WEBS 2-18=0/59, 3-17=-30/183, 3-16=-1619/147,

13-16=0/1525, 6-16=-114/1348, 6-13=-124/834, 7-13=-478/164,

9-13=-581/115, 9-12=-55/149, 10-12=0/1977

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 1 and 19 lb uplift at joint 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 28,2022





Ply Job Truss Truss Type Qtv Lot 146 HT Roof Special B220006 G6 Job Reference (optiona RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931681 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK

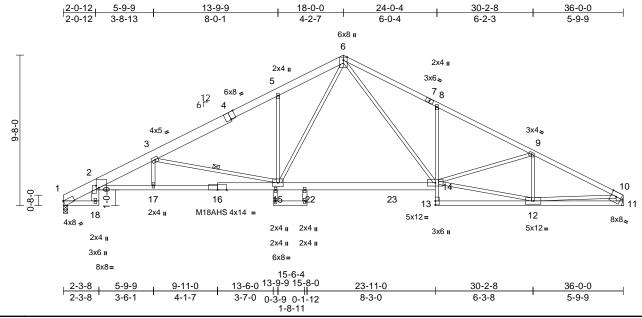


Plate Offsets (X, Y): [1:Edge,0-0-1], [2:0-5-14,Edge], [2:0-1-10,0-2-2], [4:0-4-0,Edge]

	/ 0		2.2.2			DEE:		(1)	1/1 (1		DI 4750	
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/a	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.40	14-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.68	14-15	>626	240	M18AHS	142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.33	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.14	17	>999	240	Weight: 180 lb	FT = 10%

LUMBER

Scale = 1:74.1

2x4 SPF No.2 *Except* 4-6:2x6 SPF No.2, TOP CHORD

1-4:2x8 SP DSS

BOT CHORD 2x4 SPF No.2 *Except* 2-16:2x4 SPF 2100F

1.8E, 8-13:2x3 SPF No.2, 16-14:2x6 SPF

WEBS 2x3 SPF No.2 *Except* 18-2,11-10:2x6 SPF

No.2, 19-15,20-21:2x4 SPF No.2

BRACING TOP CHORD

WEBS

Structural wood sheathing directly applied or 2-9-12 oc purlins, except end verticals.

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

bracing, Except: 2-2-0 oc bracing: 15-17.

1 Row at midpt 3-15

1=1603/0-3-8, 11=1603/ REACTIONS (lb/size)

Mechanical

Max Horiz 1=116 (LC 5)

Max Uplift 1=-19 (LC 8), 11=-19 (LC 9)

Max Grav 1=1686 (LC 2), 11=1688 (LC 2)

FORCES (lb) - Maximum Compression/Maximum

Tension

1-2=-933/60, 2-3=-4112/96, 3-5=-2863/39, TOP CHORD

5-6=-2813/133, 6-8=-2991/142,

8-9=-2973/44, 9-10=-2882/40, 10-11=-1584/47

BOT CHORD 1-18=0/0, 2-17=-143/4048, 15-17=-140/4043,

14-15=0/1838, 13-14=0/116, 8-14=-455/151,

12-13=-16/107, 11-12=-29/525

WEBS 2-18=0/71, 3-17=-140/78, 3-15=-1608/179,

5-15=-460/157, 6-15=-82/1401,

6-14=-112/1343, 12-14=0/2484, 9-14=-68/147, 9-12=-458/74, 10-12=0/1996

NOTES

Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- All plates are 2x4 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 1 and 19 lb uplift at joint 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 28,2022





Ply Job Truss Truss Type Qty Lot 146 HT Roof Special B220006 G7 2 Job Reference (optiona RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931682 LEE'S SUMMIT. MISSOURI

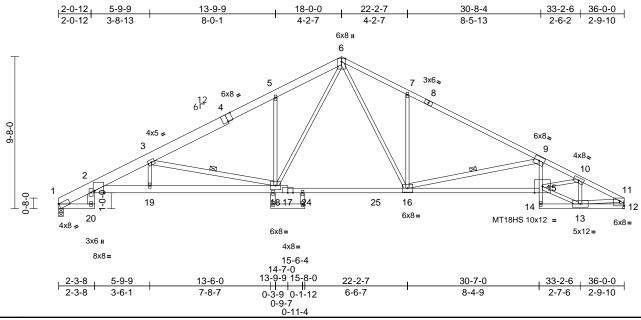
Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGK

30-8-4

22-2-7

rCDoi7



18-0-0

Plate Offsets (X, Y): [1:Edge,0-0-1], [2:0-6-14,Edge], [4:0-4-0,Edge], [12:Edge,0-3-13]

5-9-9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.35	16-18	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.63	15-16	>676	240	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.40	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.15	18-19	>999	240	Weight: 183 lb	FT = 10%

LUMBER

Scale = 1:73.3

TOP CHORD 2x6 SPF No.2 *Except* 6-8:2x4 SPF No.2,

1-4:2x8 SP DSS, 8-11:2x4 SPF 2100F 1.8E 2x4 SPF No.2 *Except* 2-17:2x6 SPF 1650F BOT CHORD

1.4E, 9-14:2x3 SPF No.2, 17-15:2x4 SPF

2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 20-2:2x6 SPF No.2,

18-3,16-9,12-11,21-18,22-23:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-10-2 oc purlins, except end verticals.

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

bracing.

WEBS 3-18, 9-16 1 Row at midpt REACTIONS (lb/size) 1=1607/0-3-8, 12=1607/

Mechanical

Max Horiz 1=115 (LC 5)

Max Uplift 1=-19 (LC 8), 12=-19 (LC 9)

Max Grav 1=1685 (LC 2), 12=1685 (LC 2)

FORCES (lb) - Maximum Compression/Maximum

Tension 1-2=-932/61, 2-3=-4358/97, 3-5=-2824/48, TOP CHORD

5-6=-2783/140, 6-7=-2725/129,

7-9=-2770/34, 9-10=-4642/68, 10-11=-2625/25, 11-12=-1592/33

BOT CHORD 1-20=0/0, 2-19=-142/4224, 18-19=-140/4227,

16-18=0/1849, 15-16=-30/4263, 14-15=0/75, 9-15=0/912, 13-14=-25/101, 12-13=-18/451

WEBS 2-20=0/71, 3-19=0/246, 3-18=-1836/171,

5-18=-462/158, 6-18=-112/1324, 6-16=-108/1243, 7-16=-490/168,

9-16=-1946/155, 13-15=0/2436,

10-15=-24/1927, 10-13=-1327/22,

11-13=0/1860

NOTES

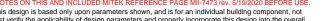
1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- All plates are 2x4 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 1 and 19 lb uplift at joint 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 28,2022

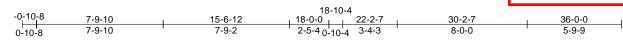




Ply Job Truss Truss Type Qty Lot 146 HT B220006 G8 Roof Special Job Reference (optiona RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931683 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK



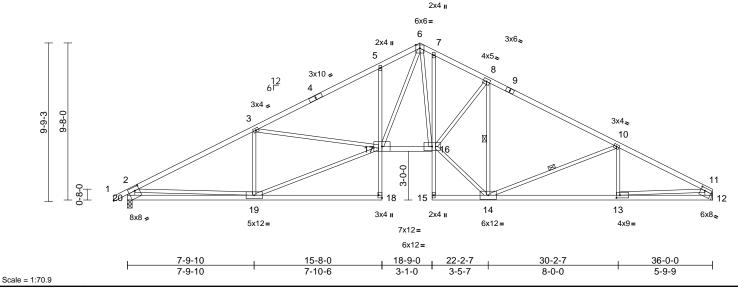


Plate Offsets (X, Y): [12:0-3-0,0-2-0], [13:0-2-8,0-2-0], [18:Edge,0-2-8], [20:0-3-4,0-2-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.23	16-17	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.46	18-19	>933	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.24	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.15	5-17	>999	240	Weight: 162 lb	FT = 10%

LUMBER

2x4 SPF 2100F 1.8E *Except* 6-9:2x4 SPF TOP CHORD

No.2

BOT CHORD 2x4 SPF No.2 *Except* 18-5,7-15:2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except* 20-2,12-11:2x6 SP

DSS

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-8-12 oc purlins, except end verticals.

Rigid ceiling directly applied or 9-7-4 oc

BOT CHORD

WEBS 1 Row at midpt 8-14, 10-14

REACTIONS (lb/size) 12=1598/ Mechanical,

20=1678/0-3-8

Max Horiz 20=160 (LC 12)

Max Uplift 12=-199 (LC 9), 20=-224 (LC 8)

FORCES (lb) - Maximum Compression/Maximum

TOP CHORD 1-2=0/35, 2-3=-2728/327, 3-5=-3201/384,

5-6=-3137/502, 6-7=-2576/351, 7-8=-2752/345, 8-10=-2251/290

10-11=-2770/344, 2-20=-1604/264,

11-12=-1536/221

BOT CHORD 19-20=-367/899, 18-19=0/30, 17-18=0/133,

5-17=-424/243, 16-17=-101/2235, 15-16=0/12, 7-16=-14/161, 14-15=-2/9,

13-14=-255/2412, 12-13=-75/467 WEBS 3-19=-818/241, 17-19=-376/2471,

3-17=0/448, 6-17=-361/1423, 6-16=-172/998, 8-16=-28/752, 8-14=-1339/149,

14-16=-117/2541, 10-14=-594/221, 10-13=-42/174, 2-19=-7/1435,

11-13=-181/1952

NOTES

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

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 224 lb uplift at joint 20 and 199 lb uplift at joint 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 28,2022



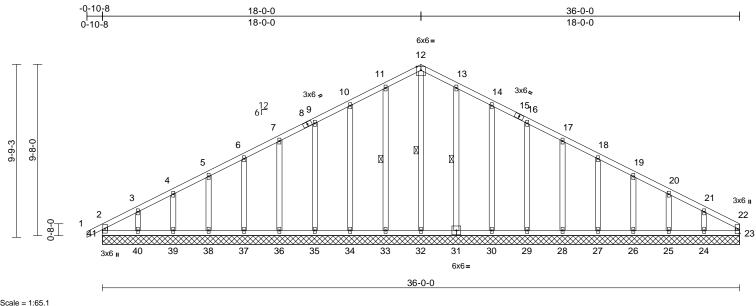


Ply Job Truss Truss Type Qty Lot 146 HT B220006 G9 Common Supported Gable Job Reference (optional RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931684 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK

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Scale = 1:	65.	٠
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	23	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 183 lb	FT = 10%

LUMBER

2x4 SPF No.2 TOP CHORD **BOT CHORD** 2x4 SPF No.2

2x4 SPF No.2 *Except* 22-23:2x3 SPF No.2 WEBS

2x4 SPF No.2 OTHERS

BRACING

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

Rigid ceiling directly applied or 10-0-0 oc

BOT CHORD

bracing.

WEBS 1 Row at midpt

12-32, 11-33, 13-31 REACTIONS (lb/size) 23=75/36-0-0, 24=194/36-0-0, 25=177/36-0-0, 26=181/36-0-0, 27=180/36-0-0, 28=180/36-0-0,

> 29=180/36-0-0, 30=179/36-0-0, 31=187/36-0-0, 32=158/36-0-0, 33=187/36-0-0, 34=179/36-0-0, 35=180/36-0-0, 36=180/36-0-0,

37=180/36-0-0, 38=179/36-0-0, 39=185/36-0-0, 40=161/36-0-0, 41=169/36-0-0

Max Horiz 41=160 (LC 12)

Max Uplift 24=-100 (LC 9), 25=-43 (LC 9), 26=-57 (LC 9), 27=-53 (LC 9), 28=-54 (LC 9), 29=-53 (LC 9),

30=-58 (LC 9), 31=-48 (LC 9), 33=-50 (LC 8), 34=-57 (LC 8),

35=-53 (LC 8), 36=-54 (LC 8), 37=-53 (LC 8), 38=-57 (LC 8),

39=-40 (LC 8), 40=-112 (LC 8), 41=-41 (LC 4)

Max Grav 23=101 (LC 18), 24=194 (LC 22), 25=177 (LC 1), 26=181 (LC 22), 27=180 (LC 1), 28=180 (LC 22), 29=180 (LC 1), 30=179 (LC 22), 31=189 (LC 22), 32=214 (LC 18), 33=190 (LC 21), 34=179 (LC 1), 35=180 (LC 1), 36=180 (LC 21), 37=180 (LC 1), 38=179 (LC 21), 39=185 (LC 1), 40=163 (LC 21),

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 2-41=-150/45, 1-2=0/32, 2-3=-190/79 3-4=-132/86, 4-5=-102/105, 5-6=-78/131,

6-7=-67/157, 7-9=-56/182, 9-10=-45/208, 10-11=-43/235, 11-12=-46/257, 12-13=-46/249, 13-14=-43/206, 14-16=-43/159, 16-17=-43/128,

41=175 (LC 17)

17-18=-43/102, 18-19=-43/76, 19-20=-60/50, 20-21=-84/36, 21-22=-133/36, 22-23=-75/2

BOT CHORD 40-41=-27/120, 39-40=-27/120, 38-39=-27/120, 37-38=-27/120,

36-37=-27/120, 35-36=-27/120 34-35=-27/120, 33-34=-27/120,

32-33=-27/120, 30-32=-27/120, 29-30=-27/120, 28-29=-27/120, 27-28=-27/120, 26-27=-27/120,

25-26=-27/120, 24-25=-27/120, 23-24=-27/120

WEBS 12-32=-174/0, 11-33=-150/74,

10-34=-139/81, 9-35=-140/77, 7-36=-140/78, 6-37=-140/78, 5-38=-139/80, 4-39=-144/71, 3-40=-125/110, 13-31=-149/72,

14-30=-139/82, 16-29=-140/77, 17-28=-140/78, 18-27=-140/78,

19-26=-141/79, 20-25=-138/72, 21-24=-150/103

NOTES

Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.



January 28,2022

Continued on page 2

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



16023 Swingley Ridge Rd Chesterfield, MO 63017

Ply Job Truss Truss Type Qty Lot 146 HT B220006 G9 Common Supported Gable Job Reference (optional

AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931684 LEE'S SUMMIT, MISSOURI

RELEASE FOR CONSTRUCTION

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tu Jan 2 1) 5544 O ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKV/rCDoi7J4JJ6ff ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGK

10) Provide mechanical connection (by others) of truss to Provide inechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 41, 50 lb uplift at joint 33, 57 lb uplift at joint 34, 53 lb uplift at joint 35, 54 lb uplift at joint 36, 53 lb uplift at joint 37, 57 lb uplift at joint 38, 40 lb uplift at joint 39, 112 lb uplift at joint 40, 48 lb uplift at joint 31, 58 lb uplift at joint 30, 53 lb uplift at joint 29, 54 lb uplift at joint 28, 53 lb uplift at joint 27, 57 lb uplift at joint 26, 43 lb uplift at joint 25 and 100 lb uplift at joint 24.

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

LOAD CASE(S) Standard



Ply Qty Job Truss Truss Type Lot 146 HT B220006 J1 Diagonal Hip Girder 2 Job Reference (optional

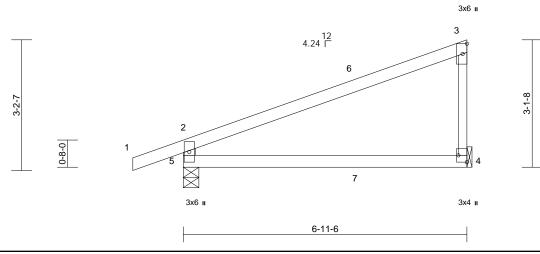
RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931685 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. T ju Jan 2 1 1554 ID:kE1z9oV660O6o1yetSOjY_yLCWI-RfC?PsB70Hq3NSgPqnL8w3uITXbGk

WrCDoi7





Scale = 1:28.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.08	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.17	4-5	>469	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.04	4-5	>999	240	Weight: 20 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2

2x4 SPF No.2 *Except* 3-4:2x3 SPF No.2 WEBS

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 (lb/size) 4=295/ Mechanical, 5=411/0-4-9

Max Horiz 5=133 (LC 7)

Max Uplift 4=-70 (LC 8), 5=-113 (LC 4) **FORCES** (lb) - Maximum Compression/Maximum

Tension

2-5=-359/164, 1-2=0/32, 2-3=-174/22, TOP CHORD

3-4=-207/98

BOT CHORD 4-5=-39/60

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 113 lb uplift at joint 5 and 70 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 81 lb down and 56 lb up at 4-2-8, and 81 lb down and 56 lb up at 4-2-8 on top chord, and 12 lb down at 4-2-8, and 12 lb down at 4-2-8 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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

Plate Increase=1 15

Uniform Loads (lb/ft) Vert: 1-2=-70, 2-3=-70, 4-5=-20

Concentrated Loads (lb)

Vert: 7=-6 (F=-3, B=-3)





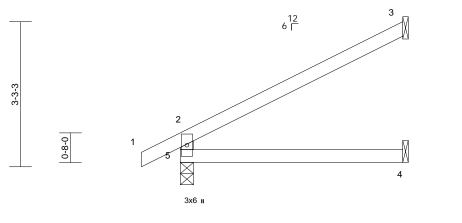


Ply Qty Job Truss Truss Type Lot 146 HT B220006 J2 Jack-Open 3 Job Reference (optional RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931686 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 1.55 46 ID:nrwDk6TraO8OZjoGl1LFTZyLCWK-RfC?PsB70Hq3NSgPqnL8w3uITXbG WrCDoix





Scale = 1:25.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.02	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.05	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.03	4-5	>999	240	Weight: 14 lb	FT = 10%

5-0-0

LUMBER

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 2x4 SPF No.2 WEBS

BRACING

TOP CHORD Structural wood sheathing directly applied or

5-0-0 oc purlins, except end verticals. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (lb/size) 3=149/ Mechanical, 4=59/

Mechanical, 5=295/0-3-8

Max Horiz 5=110 (LC 8)

Max Uplift 3=-82 (LC 8), 5=-33 (LC 8)

Max Grav 3=149 (LC 1), 4=90 (LC 3), 5=295

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 2-5=-258/79, 1-2=0/32, 2-3=-94/52

BOT CHORD 4-5=0/0

NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 5 and 82 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 28,2022





Ply Job Truss Truss Type Qty Lot 146 HT Jack-Open B220006 J3 Job Reference (optional

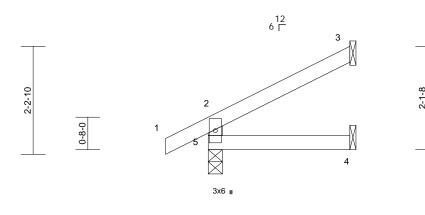
S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931687 LEE'S SUMMIT. MISSOURI

RELEASE FOR CONSTRUCTION

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 15.594 D:zhYxU2P5?YOFroL6PmErDlyLCWQ-RfC?PsB70Hq3NSgPqnL8w3ulTXb6 KWrCDb7J2zde?

-0-10-8	2-10-15
0-10-8	2-10-15



Scale = 1:23.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.01	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240	Weight: 9 lb	FT = 10%

2-10-15

LUMBER

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 2x4 SPF No.2 WEBS

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-10-15 oc purlins, except end verticals. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (lb/size)

3=79/ Mechanical, 4=29/

Mechanical, 5=207/0-3-8

Max Horiz 5=67 (LC 8)

Max Uplift 3=-47 (LC 8), 5=-27 (LC 8) Max Grav 3=79 (LC 1), 4=50 (LC 3), 5=207

FORCES (lb) - Maximum Compression/Maximum

Tension

2-5=-181/54, 1-2=0/32, 2-3=-55/27

BOT CHORD 4-5=0/0

NOTES

TOP CHORD

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 5 and 47 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 28,2022





Ply Job Truss Truss Type Qty Lot 146 HT B220006 R1 Common Girder 2 Job Reference (optional RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931688 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 554 ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGK rCDoi7

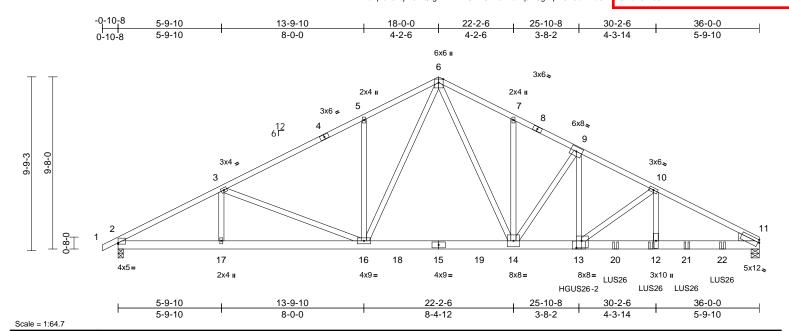


Plate Offsets (X, Y): [2:Edge,0-0-13], [11:Edge,0-1-14], [13:0-3-8,0-4-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.20	13-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.36	13-14	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.76	Horz(CT)	0.09	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.13	13	>999	240	Weight: 411 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-4,8-11:2x4 SPF

2100F 1.8E

2x6 SP 2400F 2.0E BOT CHORD 2x4 SPF No.2 WEBS WEDGE Right: 2x6 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or

4-2-15 oc purlins.

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

bracing.

REACTIONS (lb/size) 2=3060/0-3-8, 11=6329/0-5-8

Max Horiz 2=108 (LC 7)

Max Uplift 2=-191 (LC 8), 11=-591 (LC 9)

Max Grav 2=3222 (LC 13), 11=6606 (LC 14)

FORCES (lb) - Maximum Compression/Maximum Tension

1-2=0/11, 2-3=-6053/371, 3-5=-5541/395, TOP CHORD

5-6=-5513/490, 6-7=-7411/688,

7-9=-7404/621, 9-10=-10562/927, 10-11=-12029/1069

BOT CHORD 2-17=-367/5300, 16-17=-367/5300,

14-16=-242/4520, 13-14=-694/9386

12-13=-872/10400, 11-12=-872/10400

6-14=-542/5153, 7-14=-274/113

10-13=-1404/221, 10-12=-150/1684 6-16=-154/996, 5-16=-473/165,

3-16=-427/230, 3-17=0/258, 9-14=-4970/572,

9-13=-550/5266

NOTES

WFBS

2-ply truss to be connected together with 10d (0.131"x3") nails as follows:

Top chords connected as follows: 2x4 - 2 rows staggered at 0-6-0 oc.

Bottom chords connected as follows: 2x6 - 3 rows

staggered at 0-4-0 oc.

Web connected as follows: 2x4 - 1 row at 0-9-0 oc.

- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for 3) this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 191 lb uplift at joint 2 and 591 lb uplift at joint 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Use Simpson Strong-Tie HGUS26-2 (20-16d Girder, 8-16d Truss) or equivalent at 25-10-7 from the left end to connect truss(es) to front face of bottom chord.
- 10) Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss) or equivalent spaced at 2-0-0 oc max, starting at 27-11-4 from the left end to 33-11-4 to connect truss(es) to front face of bottom chord.
- 11) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1 15

Uniform Loads (lb/ft) Vert: 1-6=-70, 6-11=-70, 2-11=-20

Concentrated Loads (lb)

Vert: 13=-3933 (F), 12=-544 (F), 20=-544 (F), 21=-544 (F), 22=-544 (F)



January 28,2022





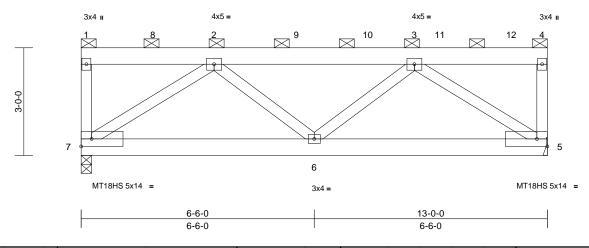
Ply Job Truss Truss Type Qty Lot 146 HT B220006 R2 Flat Girder 2 Job Reference (optional

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931689 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 🗥 594 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKV /rCDoi7J

3-8-8	9-3-8	13-0-0
3-8-8	5-7-1	3-8-8



Scale = 1:32.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.04	6	>999	360	MT18HS	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.07	6	>999	240	MT20	197/144
BCLL	0.0*	Rep Stress Incr	NO	WB	0.50	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	6	>999	240	Weight: 137 lb	FT = 10%

LUMBER

TOP CHORD 2x6 SPF No.2 **BOT CHORD** 2x6 SPF No.2 2x4 SPF No.2 WEBS

BRACING

TOP CHORD 2-0-0 oc purlins (5-8-7 max.): 1-4, except

end verticals.

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

bracing.

REACTIONS (lb/size) 5=3953/ Mechanical, 7=3598/0-3-8

Max Horiz 7=-77 (LC 6)

Max Uplift 5=-425 (LC 5), 7=-416 (LC 4) Max Grav 5=4392 (LC 13), 7=4056 (LC 14)

(lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-7=-595/97, 1-2=-91/26, 2-3=-4844/430,

3-4=-102/27, 4-5=-913/105 BOT CHORD 6-7=-520/4807, 5-6=-509/4830

WEBS 2-6=0/201, 2-7=-5802/599, 3-6=0/174,

3-5=-5830/601

NOTES

FORCES

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows: Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.

Bottom chords connected as follows: 2x6 - 2 rows

- staggered at 0-9-0 oc Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.

- All plates are MT20 plates 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 416 lb uplift at joint 7 and 425 lb uplift at joint 5.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 205 lb down and 67 lb up at 0-1-12, 1235 lb down and 121 lb up at 2-0-0, 1235 lb down and 121 lb up at 4-0-0, 1235 lb down and 121 lb up at 6-0-0, 1235 lb down and 121 lb up at 8-0-0, and 1235 lb down and 121 lb up at 10-0-0, and 1239 lb down and 122 lb up at 12-0-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (lb/ft) Vert: 1-4=-70, 5-7=-20

Concentrated Loads (lb)

Vert: 1=-97, 2=-1051, 8=-1051, 9=-1051, 10=-1051,

11=-1051, 12=-1056



January 28,2022

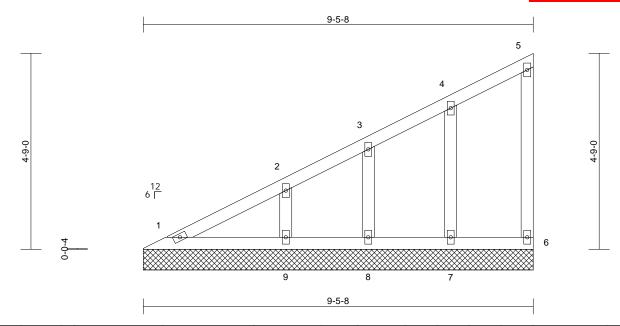




Ply Qty Job Truss Truss Type Lot 146 HT B220006 V1 Valley Job Reference (optional RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931690 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 🗥 594 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK



Scale	=	1:27	.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 34 lb	FT = 10%

LUMBER

2x4 SPF No.2 TOP CHORD **BOT CHORD** 2x4 SPF No.2 2x4 SPF No.2 WEBS 2x4 SPF No.2 OTHERS

BRACING

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins, except end verticals.

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

bracing.

REACTIONS (lb/size)

1=106/9-5-8, 6=67/9-5-8, 7=196/9-5-8, 8=149/9-5-8,

9=267/9-5-8

Max Horiz 1=182 (LC 5)

Max Uplift 6=-25 (LC 5), 7=-58 (LC 8), 8=-45

(LC 8), 9=-80 (LC 8)

1=121 (LC 16), 6=67 (LC 1), 7=196

(LC 1), 8=149 (LC 1), 9=267 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

1-2=-151/58, 2-3=-114/36, 3-4=-101/44, TOP CHORD

4-5=-80/46, 5-6=-52/24

BOT CHORD 1-9=-62/47, 8-9=-62/47, 7-8=-62/47,

6-7=-62/47

WFRS 2-9=-200/108, 3-8=-119/70, 4-7=-152/71

NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable studs spaced at 2-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 6, 80 lb uplift at joint 9, 45 lb uplift at joint 8 and 58 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 28,2022

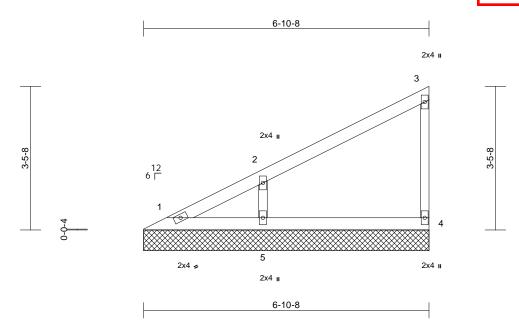




Ply Qty Job Truss Truss Type Lot 146 HT B220006 V2 Valley Job Reference (optional RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931691 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tu Jan 2 1554 ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGK\



Scale = 1:27.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 19 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 2x3 SPF No.2 WEBS 2x3 SPF No.2 OTHERS

BRACING

TOP CHORD Structural wood sheathing directly applied or

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

bracing.

REACTIONS (lb/size) 1=47/6-10-8, 4=142/6-10-8,

5=368/6-10-8 Max Horiz 1=129 (LC 5)

Max Uplift 4=-27 (LC 8), 5=-110 (LC 8) Max Grav 1=66 (LC 16), 4=142 (LC 1), 5=368

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-110/58, 2-3=-105/43, 3-4=-111/46

BOT CHORD 1-5=-44/33, 4-5=-44/33

WEBS 2-5=-286/159

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 4 and 110 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 28,2022

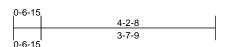




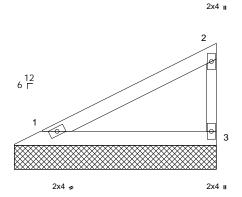
Qty Ply Job Truss Truss Type Lot 146 HT B220006 V3 Valley Job Reference (optional RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931692 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. T ju Jan 2 1 1554 ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGK\







4-2-8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 11 lb	FT = 10%

LUMBER

Scale = 1:24

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 2x3 SPF No.2 WEBS

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-3-0 oc purlins, except end verticals.

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

bracing.

REACTIONS (lb/size) 1=158/4-2-8, 3=158/4-2-8

Max Horiz 1=73 (LC 5)

Max Uplift 1=-20 (LC 8), 3=-39 (LC 8)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-67/44, 2-3=-123/60

BOT CHORD 1-3=-25/19

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1 and 39 lb uplift at joint 3.

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

LOAD CASE(S) Standard





Ply Qty Job Truss Truss Type Lot 146 HT B220006 V4 Valley Job Reference (optional

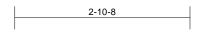
Wheeler Lumber, Waverly, KS - 66871,

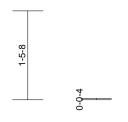
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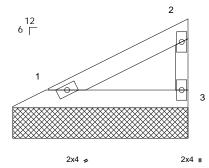
S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931693 LEE'S SUMMIT. MISSOURI

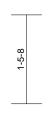
RELEASE FOR CONSTRUCTION

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2-10-8

Scale = 1:18.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 7 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 2x3 SPF No.2 WEBS

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-11-0 oc purlins, except end verticals.

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

bracing.

REACTIONS (lb/size) 1=98/2-10-8, 3=98/2-10-8

Max Horiz 1=46 (LC 5)

Max Uplift 1=-13 (LC 8), 3=-24 (LC 8) (lb) - Maximum Compression/Maximum

FORCES Tension

TOP CHORD 1-2=-42/27, 2-3=-76/37

BOT CHORD 1-3=-16/12

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 1 and 24 lb uplift at joint 3.

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

LOAD CASE(S) Standard



January 28,2022



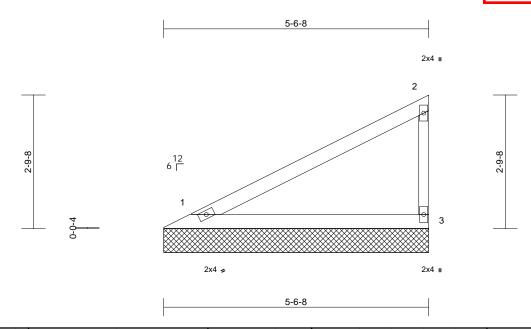
16023 Swingley Ridge Rd Chesterfield, MO 63017

Ply Qty Job Truss Truss Type Lot 146 HT B220006 V5 Valley Job Reference (optional

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931694 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 1.554 ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGK\



Scale = 1:24.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defI	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 14 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 2x3 SPF No.2 WEBS

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-7-0 oc purlins, except end verticals.

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

bracing.

REACTIONS (lb/size) 1=218/5-6-8, 3=218/5-6-8

Max Horiz 1=101 (LC 5)

Max Uplift 1=-28 (LC 8), 3=-53 (LC 8) (lb) - Maximum Compression/Maximum

FORCES Tension

TOP CHORD 1-2=-92/61, 2-3=-170/83

BOT CHORD 1-3=-35/26

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 1 and 53 lb uplift at joint 3.

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

LOAD CASE(S) Standard



January 28,2022



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 chorembers 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

AMSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd Chesterfield, MO 63017

Ply Qty Job Truss Truss Type Lot 146 HT B220006 V6 Valley Job Reference (optional RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931695 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 🕦 534 ID:DdCVaaoyvmklWX2oorm_IUyf4?s-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK WrCDoi7

8-2-8 2x4 II 3 2x4 II 4 5 2x4 " 2x4 II 2x4 II 8-2-8

Scale = 1:30.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 23 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 2x3 SPF No.2 WEBS 2x3 SPF No.2 OTHERS

BRACING TOP CHORD Structural wood sheathing directly applied or

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

bracing.

REACTIONS (lb/size) 1=119/8-2-8, 4=135/8-2-8,

5=423/8-2-8 Max Horiz 1=157 (LC 5)

Max Uplift 4=-26 (LC 5), 5=-127 (LC 8) Max Grav 1=125 (LC 16), 4=135 (LC 1),

5=423 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-127/74, 2-3=-115/44, 3-4=-105/44 **BOT CHORD** 1-5=-53/41, 4-5=-53/41

2-5=-329/183 WEBS

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 4 and 127 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard





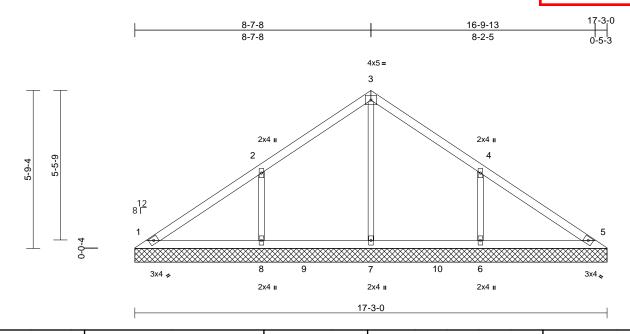
Ply Job Truss Truss Type Qty Lot 146 HT B220006 V7 Valley Job Reference (optional

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931696 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK\

.554



BCDL LUMBER

Scale = 1:42.1 Loading

TCLL (roof)

TCDI

BCLL

TOP CHORD 2x4 SPF No.2 2x4 SPF No.2 **BOT CHORD** 2x3 SPF No.2 **OTHERS**

BRACING

TOP CHORD Structural wood sheathing directly applied or

(psf)

25.0

10.0

10.0

0.0*

6-0-0 oc purlins.

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

bracing.

REACTIONS (lb/size) 1=174/17-3-0, 5=174/17-3-0, 6=437/17-3-0, 7=249/17-3-0,

8=437/17-3-0

Spacing

Code

Plate Grip DOL

Rep Stress Incr

Lumber DOL

2-0-0

1.15

1 15

YES

IRC2018/TPI2014

Max Horiz 1=142 (LC 5)

Max Uplift 1=-15 (LC 9), 6=-175 (LC 9),

8=-176 (LC 8)

Max Grav 1=198 (LC 16), 5=177 (LC 15),

6=535 (LC 16), 7=350 (LC 15), 8=535 (LC 15)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-150/108, 2-3=-149/129, 3-4=-140/107,

4-5=-114/72

BOT CHORD 1-8=-42/97, 7-8=-42/97, 6-7=-42/97,

5-6=-42/97

3-7=-181/0, 2-8=-355/222, 4-6=-355/222

WFRS NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.

This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

DEFL

Vert(LL)

Vert(TL)

Horiz(TL)

0.23

0.14

0.13

I/defI

n/a 999

n/a

n/a n/a

(loc)

5

n/a

n/a

0.00

L/d

999

PLATES

Weight: 50 lb

MT20

GRIP

197/144

FT = 10%

CSI

TC

BC

WB

Matrix-S

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 1, 176 lb uplift at joint 8 and 175 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard





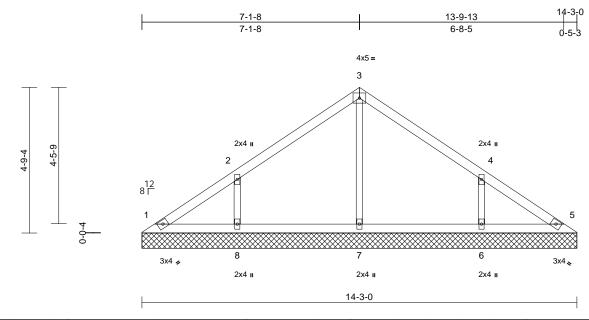
Ply Qty Job Truss Truss Type Lot 146 HT B220006 V8 Valley Job Reference (optional

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931697 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGK\

1):594



Scale = 1:37.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 40 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 2x3 SPF No.2 **OTHERS**

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 (lb/size) 1=109/14-3-0, 5=109/14-3-0, 6=352/14-3-0, 7=280/14-3-0,

8=352/14-3-0

Max Horiz 1=-116 (LC 4)

Max Uplift 1=-13 (LC 4), 6=-146 (LC 9),

8=-146 (LC 8)

Max Grav 1=120 (LC 16), 5=109 (LC 1),

6=370 (LC 16), 7=280 (LC 1), 8=370 (LC 15)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-126/86, 2-3=-145/107, 3-4=-140/84,

4-5=-97/47

BOT CHORD 1-8=-30/77, 7-8=-30/77, 6-7=-30/77,

5-6=-30/77

WFRS 3-7=-198/13, 2-8=-294/187, 4-6=-294/187

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 1, 146 lb uplift at joint 8 and 146 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 28,2022



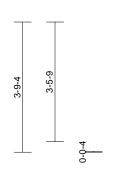


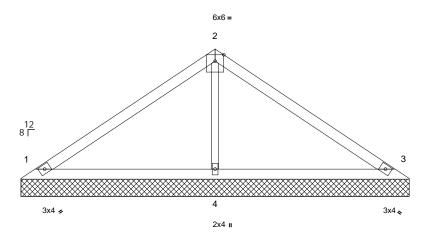
Ply Qty Job Truss Truss Type Lot 146 HT B220006 V9 Valley Job Reference (optional RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931698 LEE'S SUMMIT. MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Tu Jan 2 1554 ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKV







11-3-0

Scale = 1:33.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 30 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 2x3 SPF No.2 **OTHERS**

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 (lb/size) 1=239/11-3-0, 3=239/11-3-0,

4=453/11-3-0

Max Horiz 1=-90 (LC 4)

1=-45 (LC 8), 3=-57 (LC 9), 4=-18 Max Uplift

(LC 8)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-179/85, 2-3=-178/65 **BOT CHORD** 1-4=-18/83, 3-4=-18/83

WEBS 2-4=-295/75

NOTES

- 1) Unbalanced roof live loads have been considered for
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 1, 57 lb uplift at joint 3 and 18 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 28,2022



16023 Swingley Ridge Rd Chesterfield, MO 63017

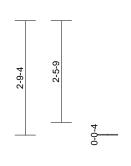
Ply Qty Job Truss Truss Type Lot 146 HT B220006 V10 Valley Job Reference (optional RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 149931699 LEE'S SUMMIT. MISSOURI

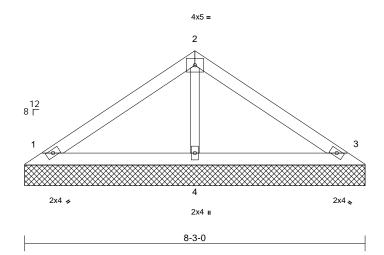
Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGK

10:554 rCDoi7







Scale = 1:27.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 21 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 2x3 SPF No.2 **OTHERS**

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 (lb/size) 1=186/8-3-0, 3=186/8-3-0,

4=289/8-3-0

Max Horiz 1=-64 (LC 4)

Max Uplift 1=-41 (LC 8), 3=-49 (LC 9) (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-115/59, 2-3=-111/44 BOT CHORD 1-4=-13/54, 3-4=-13/54

WEBS 2-4=-197/50

NOTES

FORCES

- Unbalanced roof live loads have been considered for 1) this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 1 and 49 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 28,2022





Ply Qty Job Truss Truss Type Lot 146 HT B220006 V11 Valley Job Reference (optional

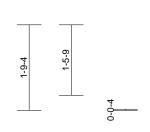
Wheeler Lumber, Waverly, KS - 66871,

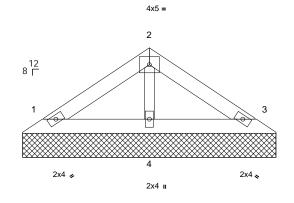
Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Thu Jan 2 11:55 4 ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGK\

DEVELOPMENT SERVICES 149931700 LEE'S SUMMIT. MISSOURI

RELEASE FOR CONSTRUCTION S NOTED FOR PLAN REVIEW

2-7-8 4-9-13 2-7-8 2-2-5





5-3-0

Scale = 1:23.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 13 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 **BOT CHORD** 2x4 SPF No.2 2x3 SPF No.2 **OTHERS**

BRACING

TOP CHORD Structural wood sheathing directly applied or

5-3-12 oc purlins.

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

bracing.

REACTIONS (lb/size) 1=110/5-3-0, 3=110/5-3-0,

4=171/5-3-0

Max Horiz 1=-38 (LC 4)

Max Uplift 1=-24 (LC 8), 3=-29 (LC 9)

(lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-68/35, 2-3=-66/26 BOT CHORD 1-4=-8/32, 3-4=-8/32 **WEBS**

2-4=-117/29

NOTES

FORCES

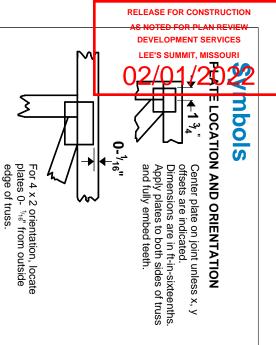
- Unbalanced roof live loads have been considered for 1) this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 1 and 29 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard







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

connector plates.

This symbol indicates the required direction of slots in

PLATE SIZE

4 × 4

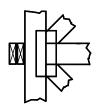
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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.

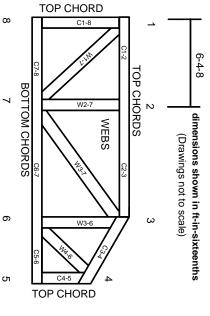
Min size shown is for crushing only

Industry Standards:

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

ANSI/TPI1: DSB-89:

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.

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- 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.

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- 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.

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

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- 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.
- 17. 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.
- 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.