TSE Engineering

FLOOR TRUSSES

APPROVED TO PROCEED
SUBJECT TO CITY INSPECTORS 12/13/2022 DL

Tri-State Engineering, Inc.
12810 NE 178th Street
Suite 218
Woodinville, WA 98072
425.481.6601

Re: J1114706F
Arrow Lumber-Orting

The truss drawing(s) referenced below have been prepared by Tri-State Engineering under my direct supervision based on the parameters provided by The Truss Company (Sumner).

Pages or sheets covered by this seal: I14248573 thru I14248584

My license renewal date for the state of Washington is August 20, 2022.

THE APPROVED CONSTRUCTION PLANS AND ALL ENGINEERING DOCUMENTS MUST BE POSTED ON THE JOB AT ALL INSPECTIONS IN A VISIBLE AND READILY ACCESSIBLE LOCATION.

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

March 30,2022

Terry Powell

The seal on these drawings indicate acceptance of professional engineering responsibility solely for the truss components shown. The suitability and use of this component for any particular building is the responsibility of the building designer, per ANSI/TPI 1.

PRRNSF20220550

Job	Truss	Truss Type	Qty	Ply	Arrow Lumber-Orting	I14248573
J1114706F	F01	GABLE	1	1	Job Reference (optional)	

The Truss Company (Sumner), Sumner, WA - 98390, 8.530 s Dec 6 2021 MiTek Industries, Inc. Tue Mar 29 15:47:59 2022 Page 1
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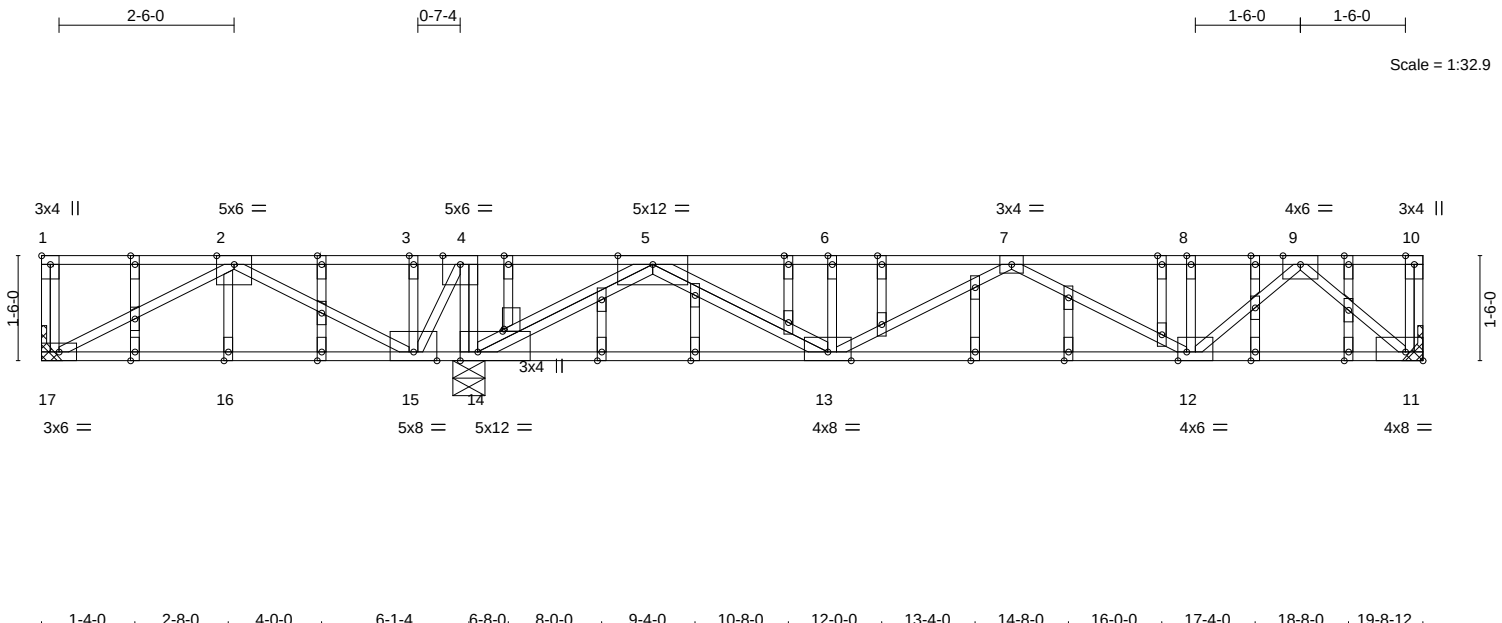

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [11:Edge,0-1-8], [12:0-1-8,Edge], [14:0-3-0,Edge], [26:0-0-6,0-0-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.90	Vert(LL)	-0.09	12-13	>999	480	MT20	185/148
TCDL	10.0	Lumber DOL	1.00	BC	0.97	Vert(CT)	-0.20	12-13	>793	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.52	Horz(CT)	0.03	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 120 lb	FT = 20%F, 9%E

LUMBER-
TOP CHORD 2x4 DF No.1&Btr(flat)
BOT CHORD 2x4 HF No.2(flat)
WEBS 2x4 DF Stud(flat)
OTHERS 2x4 DF Stud(flat)

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

REACTIONS. (size) 17=Mechanical, 11=Mechanical, 14=0-5-8
Max Uplift 17=-313(LC 4)
Max Grav 17=531(LC 3), 11=1429(LC 4), 14=3354(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=0/1985, 3-4=0/1985, 4-5=0/2632, 5-6=-2346/0, 6-7=-2376/0, 7-8=-2464/0, 8-9=-2464/0
BOT CHORD 16-17=-728/516, 15-16=-728/516, 14-15=-2469/0, 13-14=-38/501, 12-13=0/3000, 11-12=0/1471
WEBS 4-14=-1612/0, 2-17=-587/828, 2-15=-1837/0, 3-15=-452/23, 4-15=0/1362, 5-14=-3418/0, 5-13=0/2143, 6-13=-589/0, 7-13=-744/0, 7-12=-608/0, 8-12=-495/0, 9-12=0/1323, 9-11=-1928/0

NOTES- (9)
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x4 MT20 unless otherwise indicated.
3) Gable studs spaced at 1-4-0 oc.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 313 lb uplift at joint 17.
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.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
8) CAUTION, Do not erect truss backwards.
9) All dimensions given in feet-inches-sixteenths (FFIISS) format.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 11-17=-20, 1-10=-233

PRRNSF20220550

March 30,2022

Job	Truss	Truss Type	Qty	Ply	Arrow Lumber-Orting	I14248574
J1114706F	F02	FLOOR	3	1	Job Reference (optional)	

The Truss Company (Sumner), Sumner, WA - 98390, 8.530 s Dec 6 2021 MiTek Industries, Inc. Tue Mar 29 15:48:00 2022 Page 1
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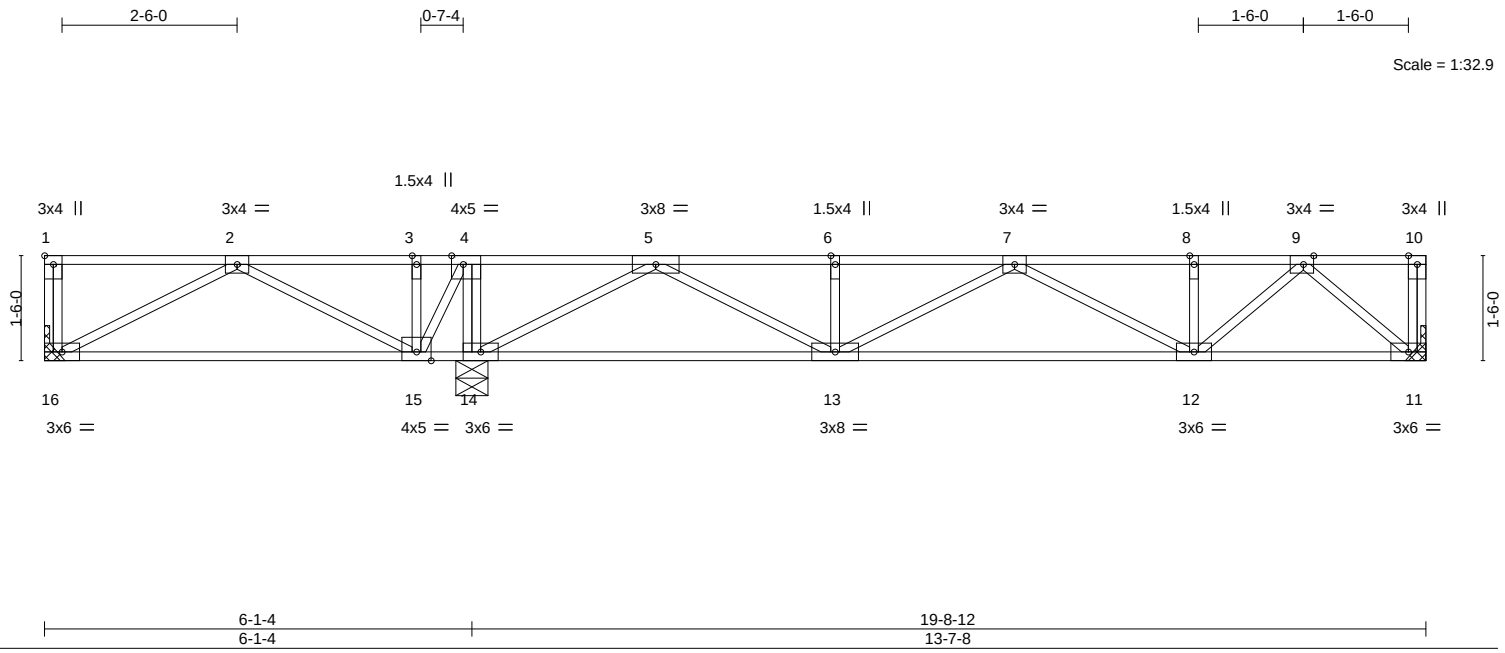

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [4:0-2-0,Edge], [9:0-1-12,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.51	Vert(LL)	-0.06	12-13	>999	480	MT20	185/148
TCDL	10.0	Lumber DOL	1.00	BC	0.55	Vert(CT)	-0.14	12-13	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.02	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 91 lb	FT = 20%F, 9%E

LUMBER-
TOP CHORD 2x4 HF No.2(flat)
BOT CHORD 2x4 HF No.2(flat)
WEBS 2x4 DF Stud(flat)

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

REACTIONS. (size) 16=Mechanical, 11=Mechanical, 14=0-5-8
Max Uplift 16=-148(LC 4)
Max Grav 16=246(LC 3), 11=692(LC 4), 14=1579(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=0/904, 3-4=0/904, 4-5=0/1171, 5-6=-1234/0, 6-7=-1234/0, 7-8=-1211/0, 8-9=-1211/0
BOT CHORD 15-16=-398/194, 14-15=-1171/0, 13-14=0/332, 12-13=0/1470, 11-12=0/710
WEBS 4-14=-785/0, 2-16=-219/449, 2-15=-792/0, 4-15=0/683, 5-14=-1629/0, 5-13=0/1038, 6-13=-250/0, 7-13=-285/0, 7-12=-294/0, 9-12=0/666, 9-11=-931/0

NOTES- (7)
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 148 lb uplift at joint 16.
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.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.
7) All dimensions given in feet-inches-sixteenths (FFIISS) format.

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Job	Truss	Truss Type	Qty	Ply	Arrow Lumber-Orting	I14248575
J1114706F	F03	FLOOR	4	1	Job Reference (optional)	

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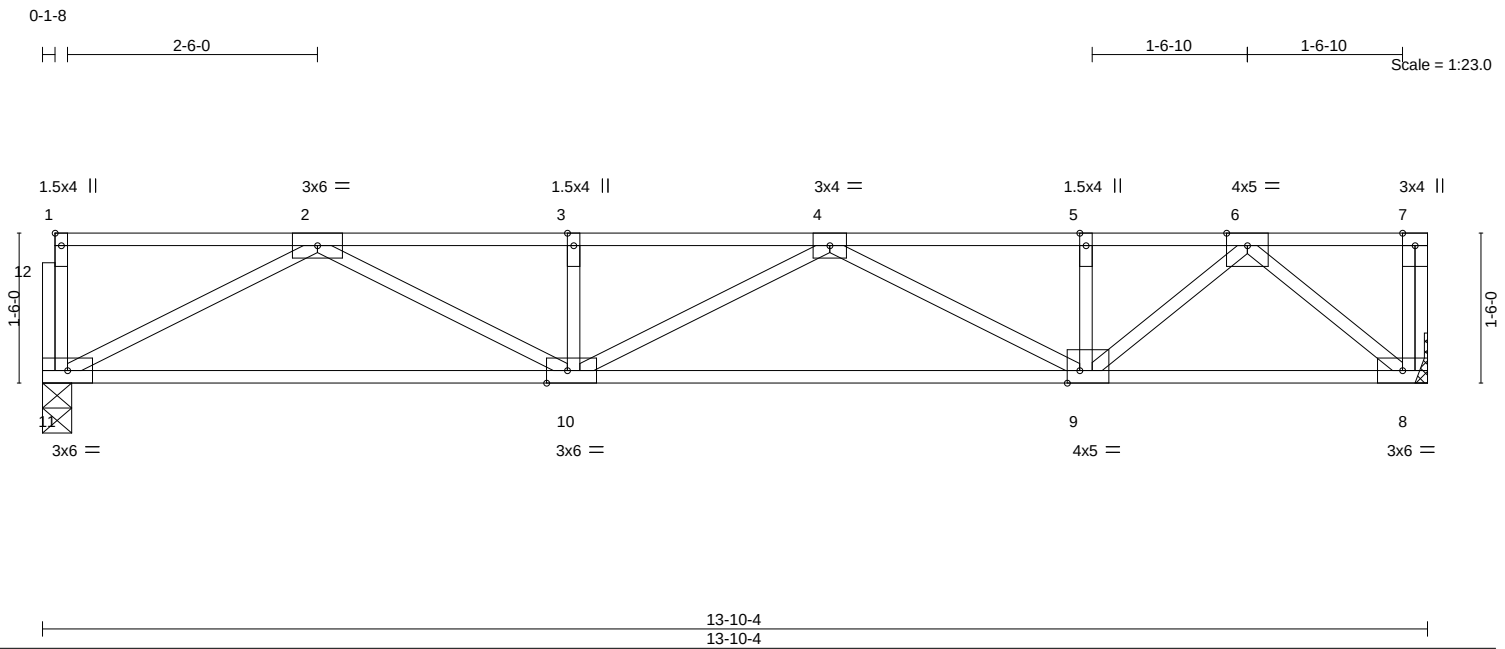

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [9:0-1-8,Edge], [10:0-2-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.40	Vert(LL)	-0.08	9-10	>999	480	MT20	185/148
TCDL	10.0	Lumber DOL	1.00	BC	0.78	Vert(CT)	-0.20	10-11	>836	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.39	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 63 lb	FT = 20%F, 9%E

LUMBER-
TOP CHORD 2x4 HF No.2(flat)
BOT CHORD 2x4 HF No.2(flat)
WEBS 2x4 DF Stud(flat)

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

REACTIONS. (size) 11=0-3-8, 8=Mechanical
Max Grav 11=819(LC 1), 8=958(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2011/0, 3-4=-2011/0, 4-5=-1596/0, 5-6=-1596/0
BOT CHORD 10-11=0/1294, 9-10=0/2055, 8-9=0/973
WEBS 2-11=-1455/0, 2-10=0/814, 4-9=-520/0, 6-9=0/819, 6-8=-1258/0

NOTES- (6)
1) Attach ribbon block to truss with 3-10d nails applied to flat face.
2) Refer to girder(s) for truss to truss connections.
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.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.
6) All dimensions given in feet-inches-sixteenths (FFIISS) format.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 8-11=-20, 1-6=-100, 6-7=-190

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Job	Truss	Truss Type	Qty	Ply	Arrow Lumber-Orting	
J1114706F	F04	FLOOR	2	1	Job Reference (optional)	I14248576

The Truss Company (Sumner), Sumner, WA - 98390, 8.530 s Dec 6 2021 MiTek Industries, Inc. Tue Mar 29 15:48:01 2022 Page 1
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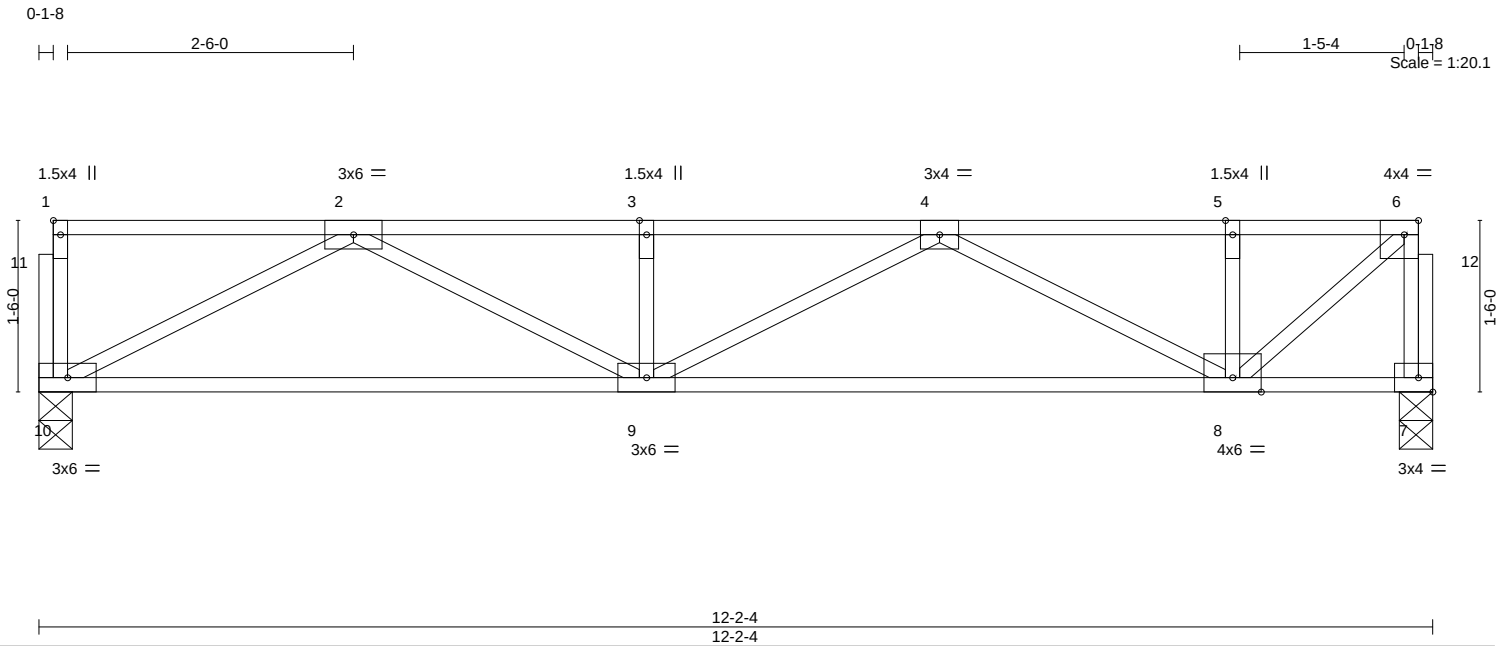

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [6:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.32	Vert(LL)	-0.05	9	>999	480	MT20	185/148
TCDL	10.0	Lumber DOL	1.00	BC	0.58	Vert(CT)	-0.17	9-10	>841	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 56 lb	FT = 20%F, 9%E

LUMBER-
TOP CHORD 2x4 HF No.2(flat)
BOT CHORD 2x4 HF No.2(flat)
WEBS 2x4 DF Stud(flat)

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

REACTIONS. (size) 7=0-3-8, 10=0-3-8
Max Grav 7=710(LC 1), 10=710(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 6-7=-711/0, 2-3=-1601/0, 3-4=-1601/0, 4-5=-782/0, 5-6=-782/0
BOT CHORD 9-10=0/1086, 8-9=0/1438
WEBS 2-10=-1221/0, 2-9=0/584, 4-8=-745/0, 6-8=0/999

NOTES- (4)
1) Attach ribbon block to truss with 3-10d nails applied to flat face.
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.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) All dimensions given in feet-inches-sixteenths (FFIISS) format.

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Job	Truss	Truss Type	Qty	Ply	Arrow Lumber-Orting	
J1114706F	F05	Floor	4	1	Job Reference (optional)	I14248577

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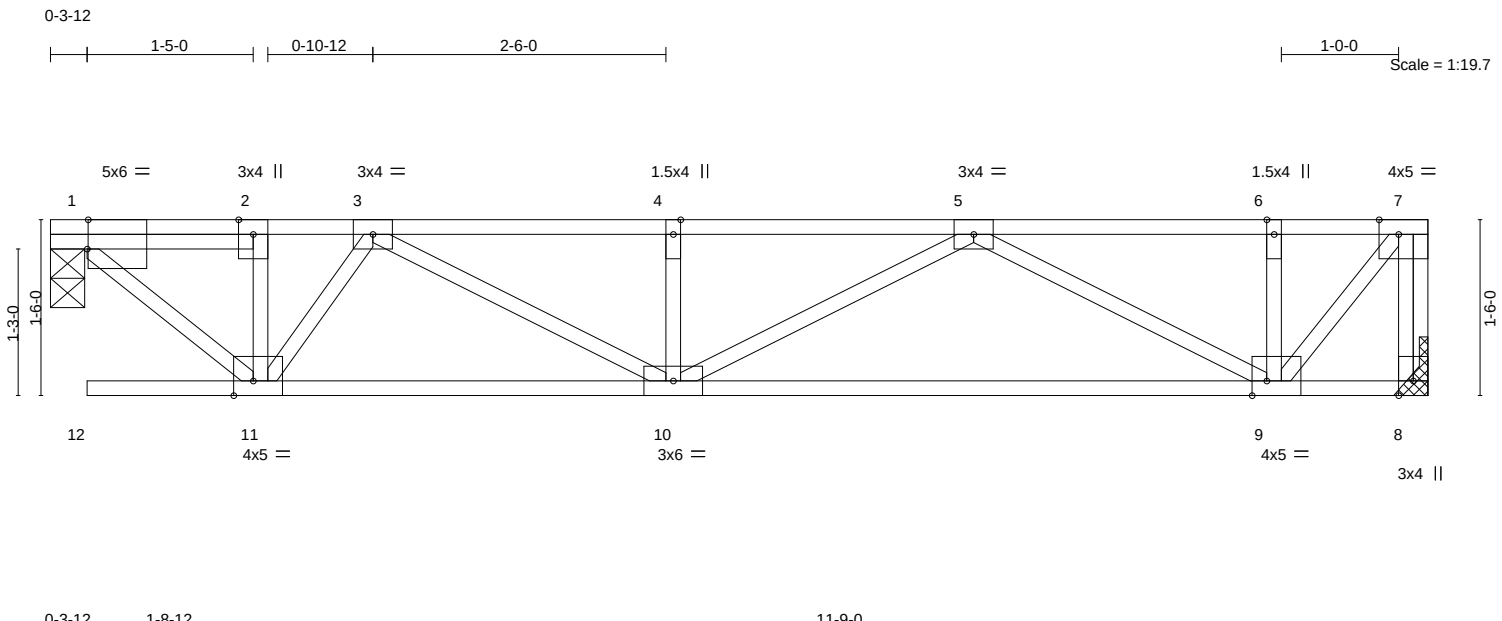

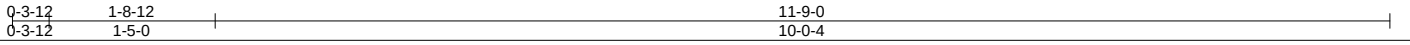

Plate Offsets (X,Y)-- [1:0-0-2,Edge], [7:0-2-0,Edge], [9:0-1-8,Edge], [11:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.26	Vert(LL)	-0.04	10	>999	480	MT20	185/148
TCDL	10.0	Lumber DOL	1.00	BC	0.49	Vert(CT)	-0.13	9-10	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 56 lb	FT = 20%F, 9%E

LUMBER-
TOP CHORD 2x4 HF No.2(flat)
BOT CHORD 2x4 HF No.2(flat)
WEBS 2x4 DF Stud(flat)

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

REACTIONS. (size) 8=Mechanical, 1=0-3-8
Max Grav 8=679(LC 1), 1=679(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 7-8=-699/0, 1-2=-651/0, 2-3=-647/0, 3-4=-1438/0, 4-5=-1438/0, 5-6=-582/0, 6-7=-582/0
BOT CHORD 10-11=0/974, 9-10=0/1254
WEBS 7-9=0/891, 5-9=-763/0, 4-10=-260/0, 3-10=0/526, 3-11=-572/0, 1-11=0/865

NOTES- (6)
1) Refer to girder(s) for truss to truss connections.
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.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
5) CAUTION, Do not erect truss backwards.
6) All dimensions given in feet-inches-sixteenths (FFIISS) format.

PRRNSF20220550

March 30,2022

Job	Truss	Truss Type	Qty	Ply	Arrow Lumber-Orting	
J1114706F	F06	FLOOR	1	1	Job Reference (optional)	I14248578

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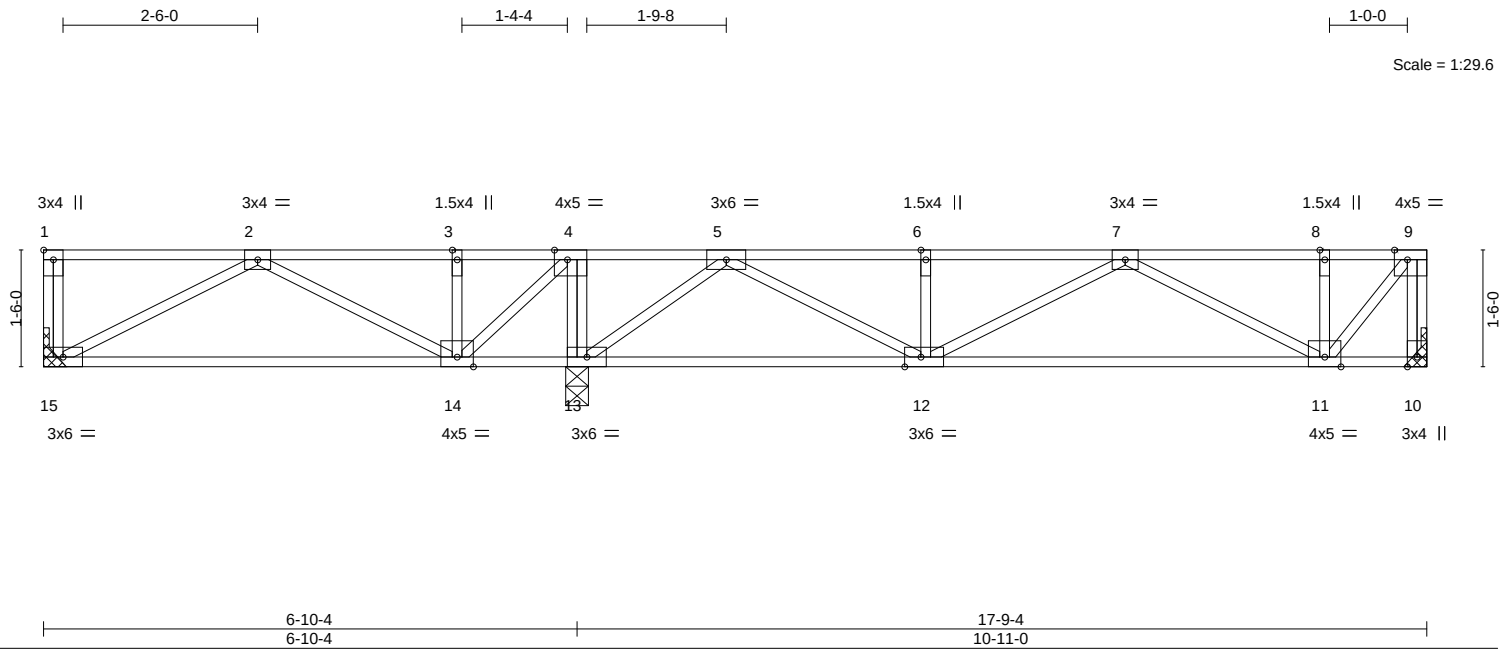

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [4:0-2-0,Edge], [9:0-2-0,Edge], [12:0-2-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.38	Vert(LL)	-0.03	11-12	>999	480	MT20	185/148
TCDL	10.0	Lumber DOL	1.00	BC	0.42	Vert(CT)	-0.15	14-15	>553	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 83 lb	FT = 20%F, 9%E

LUMBER-
TOP CHORD 2x4 HF No.2(flat)
BOT CHORD 2x4 HF No.2(flat)
WEBS 2x4 DF Stud(flat)

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

REACTIONS. (size) 10=Mechanical, 15=Mechanical, 13=0-3-8
Max Uplift 15=-10(LC 4)
Max Grav 10=557(LC 4), 15=323(LC 3), 13=1325(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 9-10=-574/0, 2-3=-108/389, 3-4=-108/389, 4-5=0/794, 5-6=-887/0, 6-7=-887/0, 7-8=-474/0, 8-9=-474/0
BOT CHORD 14-15=-138/339, 13-14=-794/0, 11-12=0/926
WEBS 4-13=-661/0, 2-15=-383/156, 2-14=-451/0, 4-14=0/760, 9-11=0/726, 7-11=-513/0, 6-12=-258/0, 5-12=0/837, 5-13=-1078/0

NOTES- (7)
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 15.
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.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.
7) All dimensions given in feet-inches-sixteenths (FFIISS) format.

PRRNSF20220550

March 30,2022

Job	Truss	Truss Type	Qty	Ply	Arrow Lumber-Orting	I14248579
J1114706F	F07	FLOOR	6	1	Job Reference (optional)	

The Truss Company (Sumner), Sumner, WA - 98390, 8.530 s Dec 6 2021 MiTek Industries, Inc. Tue Mar 29 15:48:03 2022 Page 1
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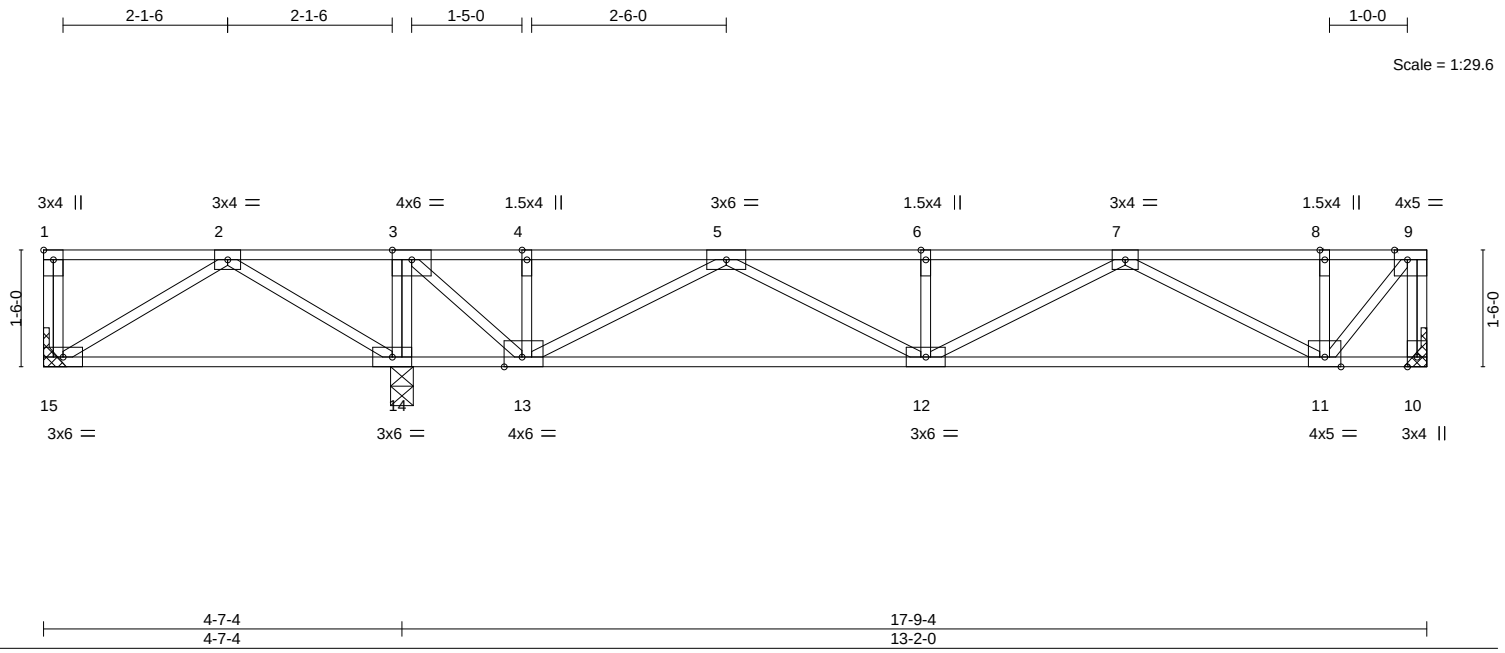

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [9:0-2-0,Edge], [13:0-2-12,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.48	Vert(LL)	-0.05	12	>999	480	MT20	185/148
TCDL	10.0	Lumber DOL	1.00	BC	0.50	Vert(CT)	-0.13	12-13	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-SH							Weight: 83 lb	FT = 20%F, 9%E

LUMBER-
TOP CHORD 2x4 HF No.2(flat)
BOT CHORD 2x4 HF No.2(flat)
WEBS 2x4 DF Stud(flat)

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

REACTIONS. (size) 10=Mechanical, 15=Mechanical, 14=0-3-8
Max Uplift 15=-259(LC 4)
Max Grav 10=663(LC 4), 15=139(LC 3), 14=1532(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 9-10=-678/0, 2-3=0/1113, 5-6=-1374/0, 6-7=-1374/0, 7-8=-564/0, 8-9=-564/0
BOT CHORD 14-15=-509/25, 13-14=-1113/0, 12-13=0/862, 11-12=0/1215
WEBS 3-14=-984/0, 2-15=-29/597, 2-14=-900/0, 9-11=0/863, 7-11=-739/0, 6-12=-251/0, 5-12=0/587, 5-13=-1150/0, 3-13=0/1253

NOTES- (7)
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 259 lb uplift at joint 15.
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.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.
7) All dimensions given in feet-inches-sixteenths (FFIISS) format.

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Job	Truss	Truss Type	Qty	Ply	Arrow Lumber-Orting	I14248580
J1114706F	F08	GABLE	1	1	Job Reference (optional)	

The Truss Company (Sumner), Sumner, WA - 98390, 8.530 s Dec 6 2021 MiTek Industries, Inc. Tue Mar 29 15:48:04 2022 Page 1
ID:hrXxBetUP3sEeUjoY7xaLTy75TH-cpcqecTqKYStHdUTIASsra9VjkB7D662ilzvJIzW1Fv

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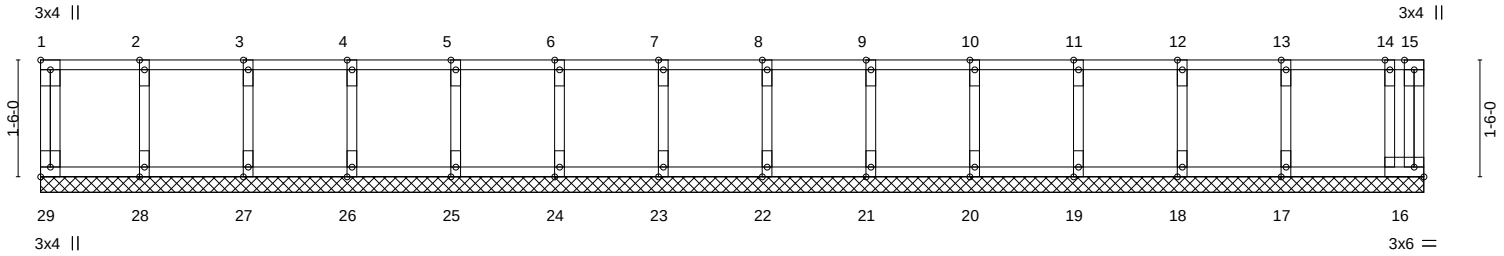

1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-8-0	16-0-0	17-4-0	17-9-4
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	0-5-4

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [29:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	185/148
TCDL	10.0	Lumber DOL	1.00	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.00	16	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							Weight: 70 lb	FT = 20%F, 9%E

LUMBER-
TOP CHORD 2x4 HF No.2(flat)
BOT CHORD 2x4 HF No.2(flat)
WEBS 2x4 DF Stud(flat)
OTHERS 2x4 DF Stud(flat)

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

REACTIONS. All bearings 17-9-4.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 29, 16, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19, 18, 17

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

NOTES- (7)
1) All plates are 1.5x4 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) 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.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) All dimensions given in feet-inches-sixteenths (FFIISS) format.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 16-29=-20, 1-15=-143

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Job	Truss	Truss Type	Qty	Ply	Arrow Lumber-Orting	I14248581
J1114706F	F09	FLOOR GIRDER	1	1	Job Reference (optional)	

The Truss Company (Sumner), Sumner, WA - 98390, 8.530 s Dec 6 2021 MiTek Industries, Inc. Tue Mar 29 15:48:05 2022 Page 1
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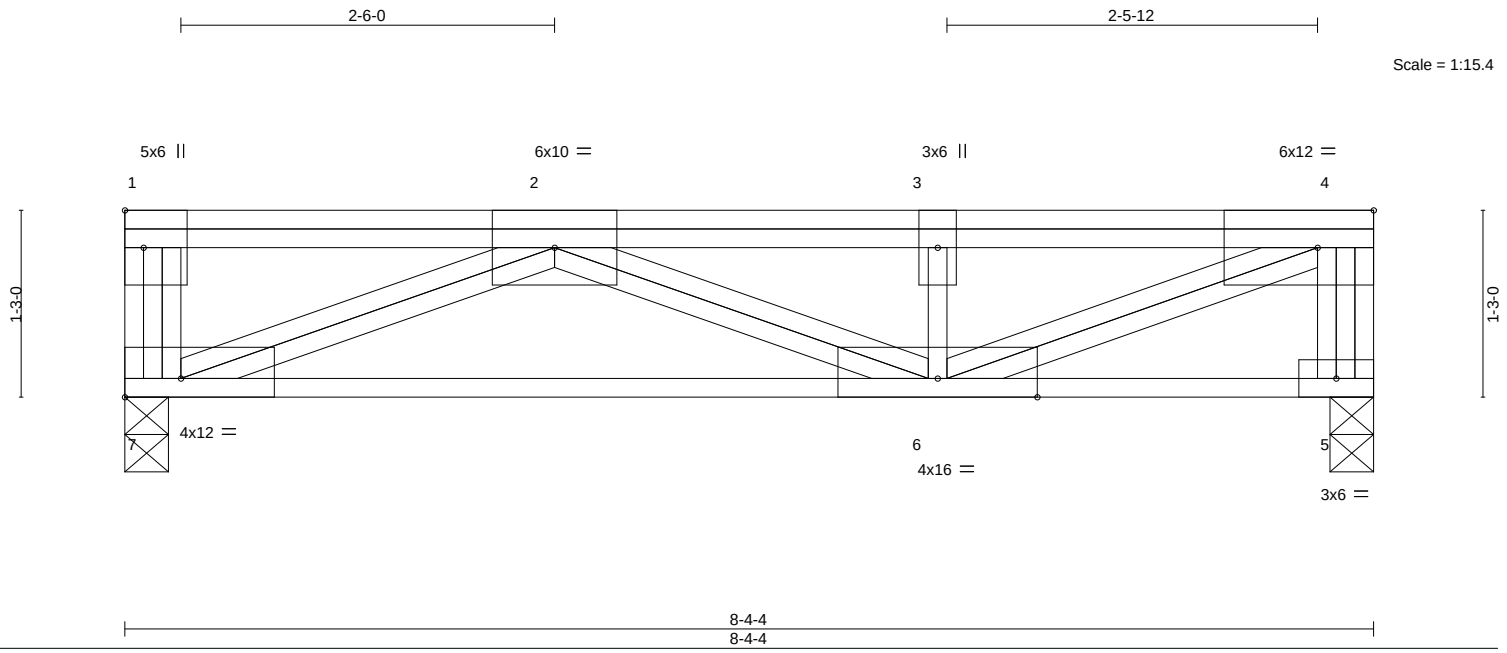

Plate Offsets (X,Y)-- [4:0-4-8,Edge], [7:Edge,0-1-8]

LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.70	Vert(LL)	-0.05	6-7	>999	480	MT20	185/148
TCDL	10.0	Lumber DOL	1.00	BC	0.80	Vert(CT)	-0.17	6-7	>569	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.72	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 61 lb	FT = 20%F, 9%E

LUMBER-
TOP CHORD 2x4 HF No.2(flat)
BOT CHORD 2x4 DF No.1&Btr(flat)
WEBS 2x4 DF Stud(flat)

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

REACTIONS. (size) 7=0-3-8, 5=0-3-8
Max Grav 7=1885(LC 1), 5=1885(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-7=-510/0, 4-5=-1871/0, 2-3=-3484/0, 3-4=-3485/0
BOT CHORD 6-7=0/3364
WEBS 2-7=-3617/0, 3-6=-1306/0, 4-6=0/3740

NOTES- (3)
1) 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.
2) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
3) All dimensions given in feet-inches-sixteenths (FFIISS) format.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 5-7=-20, 1-4=-453

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Job	Truss	Truss Type	Qty	Ply	Arrow Lumber-Orting	I14248582
J1114706F	F10	FLOOR	1	1	Job Reference (optional)	

The Truss Company (Sumner), Sumner, WA - 98390, 8.530 s Dec 6 2021 MiTek Industries, Inc. Tue Mar 29 15:48:06 2022 Page 1
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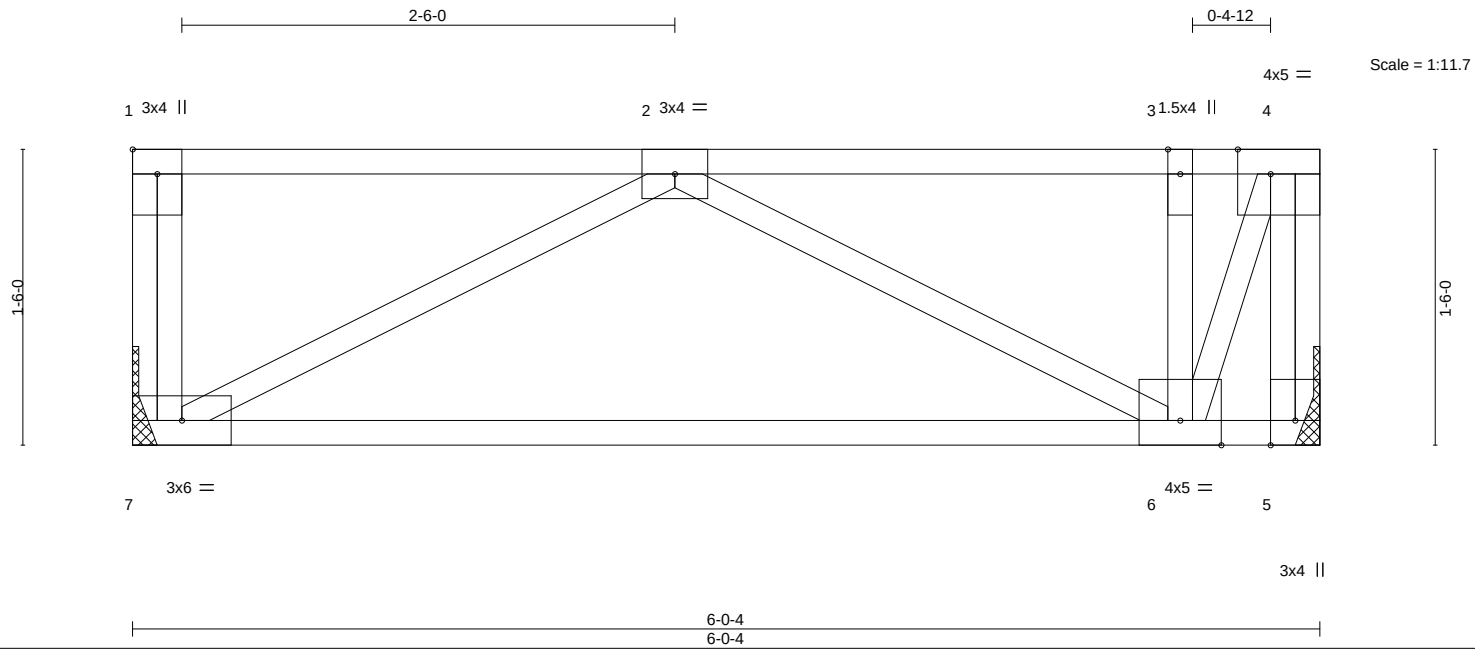

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [4:0-2-0,Edge]

LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.33	Vert(LL)	-0.00	6-7	>999	480	MT20	185/148
TCDL	10.0	Lumber DOL	1.00	BC	0.39	Vert(CT)	-0.13	6-7	>549	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 32 lb	FT = 20%F, 9%E

LUMBER-
TOP CHORD 2x4 HF No.2(flat)
BOT CHORD 2x4 HF No.2(flat)
WEBS 2x4 DF Stud(flat)

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

REACTIONS. (size) 5=Mechanical, 7=Mechanical
Max Grav 5=346(LC 1), 7=346(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-5=-440/0
BOT CHORD 6-7=0/386
WEBS 2-7=-436/0, 4-6=0/513

NOTES- (4)
1) Refer to girder(s) for truss to truss connections.
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.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) All dimensions given in feet-inches-sixteenths (FFIISS) format.

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Job	Truss	Truss Type	Qty	Ply	Arrow Lumber-Orting	I14248583
J1114706F	F11	Floor Girder	1	1	Job Reference (optional)	

The Truss Company (Sumner), Sumner, WA - 98390, 8.530 s Dec 6 2021 MiTek Industries, Inc. Tue Mar 29 15:48:06 2022 Page 1
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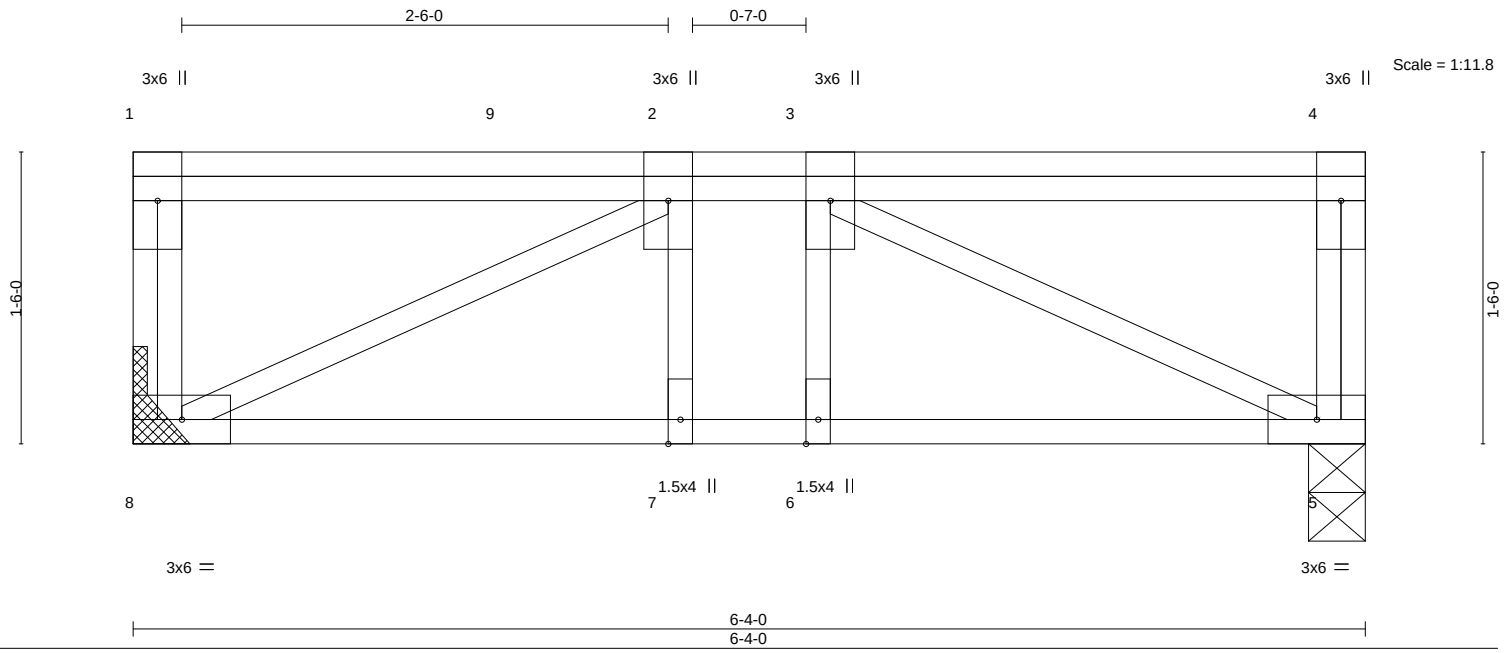

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.26	Vert(LL)	-0.02	7-8	>999	480	MT20	185/148
TCDL	10.0	Lumber DOL	1.00	BC	0.24	Vert(CT)	-0.03	7-8	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.17	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-SH							Weight: 39 lb	FT = 20%F, 9%E

LUMBER-
TOP CHORD 2x4 HF No.2(flat)
BOT CHORD 2x4 HF No.2(flat)
WEBS 2x4 DF Stud(flat)

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

REACTIONS. (size) 8=Mechanical, 5=0-3-8
Max Grav 8=451(LC 1), 5=403(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-568/0
BOT CHORD 7-8=0/568, 6-7=0/568, 5-6=0/568
WEBS 3-5=-632/0, 2-8=-632/0

NOTES- (5)
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
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.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) All dimensions given in feet-inches-sixteenths (FFIISS) format.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 5-8=-20, 1-4=-100
Concentrated Loads (lb)
Vert: 9=-124

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Job	Truss	Truss Type	Qty	Ply	Arrow Lumber-Orting	I14248584
J1114706F	F12	FLOOR	1	1	Job Reference (optional)	

The Truss Company (Sumner), Sumner, WA - 98390, 8.530 s Dec 6 2021 MiTek Industries, Inc. Tue Mar 29 15:48:07 2022 Page 1
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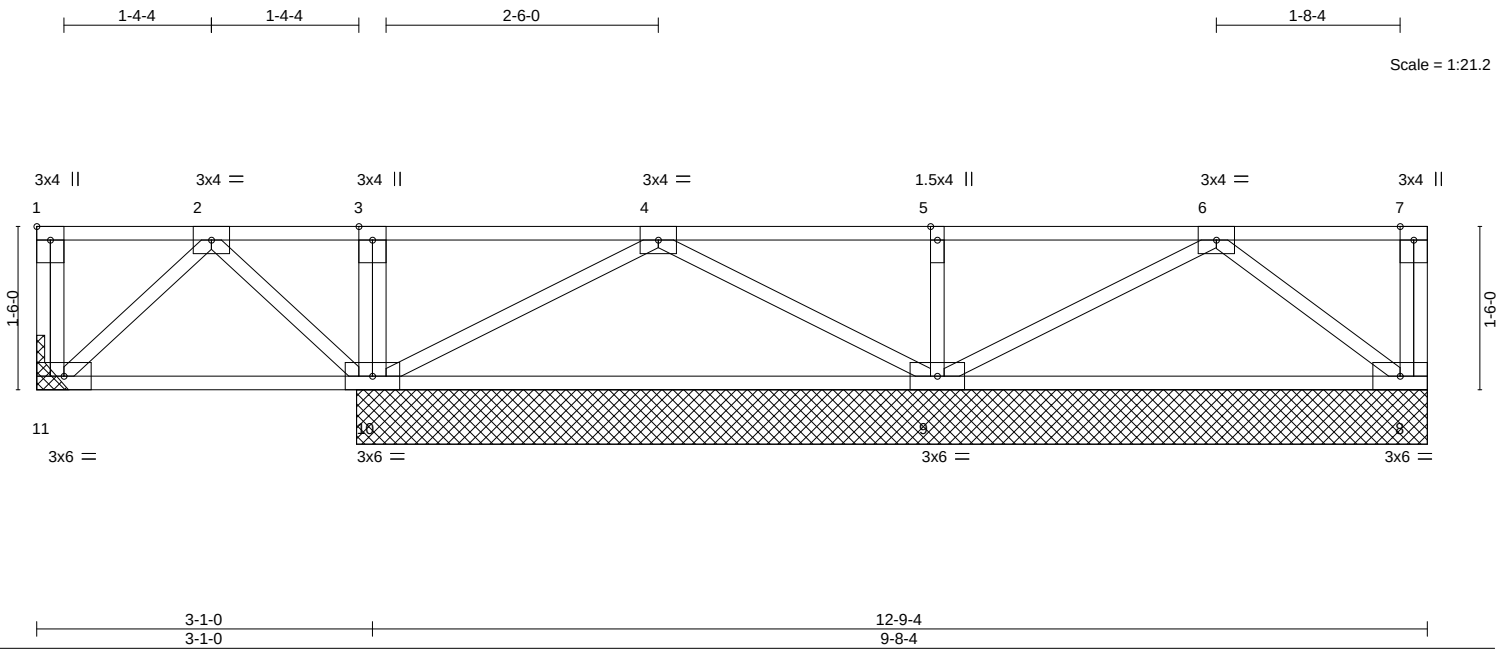

Plate Offsets (X,Y)-- [1:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.27	Vert(LL)	0.00	9	****	480	MT20	185/148
TCDL	10.0	Lumber DOL	1.00	BC	0.27	Vert(CT)	-0.06	9-10	>996	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 61 lb	FT = 20%F, 9%E

LUMBER-
TOP CHORD 2x4 HF No.2(flat)
BOT CHORD 2x4 HF No.2(flat)
WEBS 2x4 DF Stud(flat)

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

REACTIONS. All bearings 9-10-0 except (jt=length) 11=Mechanical.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 11, 8 except 10=546(LC 1), 9=629(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 4-10=-280/0, 4-9=-283/0, 5-9=-260/0, 6-9=-268/0

NOTES- (5)
1) Refer to girder(s) for truss to truss connections.
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.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) CAUTION, Do not erect truss backwards.
5) All dimensions given in feet-inches-sixteenths (FFIISS) format.

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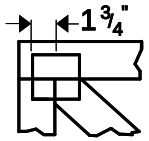
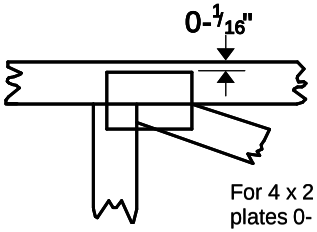
Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

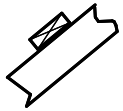
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

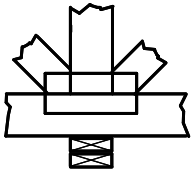
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

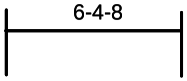


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur.

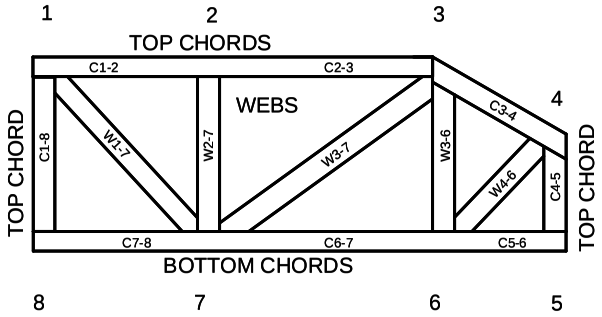
Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI1: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ER-5243, 9604B, 9730, 95-43, 96-31, 9667A
NER-487, NER-561
95110, 84-32, 96-67, ER-3907, 9432A

theTRUSSCO. INC.

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI1.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative T, I, or Eliminator bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.

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