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

RE: 3287790 - HARTLEY BROTHERS - MAHN RES.

MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Site Information:
Customer Info: Hartley Brothers Project Name: Spec Hse Model: Oakland 2 Modified
Lot/Block: N/A Subdivision: N/A
Address: PID 18-7S-17-10021-014, TBD
City: Columbia Cty State: FL

Name Address and License # of Structural Engineer of Record, If there is one, for the building.
Name: License #:
Address:
City: State:

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):
Design Code: FBC2020/TPI2014 Design Program: MiTek 20/20 8.5
Wind Code: ASCE 7-16 Wind Speed: 130 mph
Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 99 individual, Truss Design Drawings and 0 Additional Drawings.
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

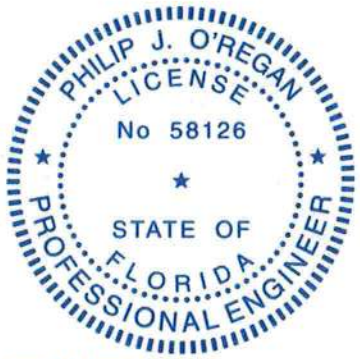
No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	T28917192	CJ01	10/5/22	15	T28917206	CJ05	10/5/22
2	T28917193	CJ01A	10/5/22	16	T28917207	CJ05A	10/5/22
3	T28917194	CJ01B	10/5/22	17	T28917208	CJ05C	10/5/22
4	T28917195	CJ02	10/5/22	18	T28917209	CJ06	10/5/22
5	T28917196	CJ02A	10/5/22	19	T28917210	CJ06C	10/5/22
6	T28917197	CJ02C	10/5/22	20	T28917211	CJ07	10/5/22
7	T28917198	CJ03	10/5/22	21	T28917212	EJ01	10/5/22
8	T28917199	CJ03A	10/5/22	22	T28917213	EJ02	10/5/22
9	T28917200	CJ03B	10/5/22	23	T28917214	EJ03	10/5/22
10	T28917201	CJ03C	10/5/22	24	T28917215	EJ04	10/5/22
11	T28917202	CJ04	10/5/22	25	T28917216	EJ05	10/5/22
12	T28917203	CJ04A	10/5/22	26	T28917217	EJ06	10/5/22
13	T28917204	CJ04B	10/5/22	27	T28917218	EJ07	10/5/22
14	T28917205	CJ04C	10/5/22	28	T28917219	EJ08	10/5/22

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource-Lake City, FL.

Truss Design Engineer's Name: ORegan, Philip
My license renewal date for the state of Florida is February 28, 2023.

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.



Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

RE: 3287790 - HARTLEY BROTHERS - MAHN RES.

MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Site Information:

Customer Info: Hartley Brothers Project Name: Spec Hse Model: Oakland 2 Modified
Lot/Block: N/A Subdivision: N/A
Address: PID 18-7S-17-10021-014, TBD
City: Columbia Cty State: FL

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
29	T28917220	HJ02	10/5/22	86	T28917277	T47	10/5/22
30	T28917221	HJ03	10/5/22	87	T28917278	T48	10/5/22
31	T28917222	HJ09B	10/5/22	88	T28917279	T49	10/5/22
32	T28917223	HJ09C	10/5/22	89	T28917280	T50	10/5/22
33	T28917224	HJ10	10/5/22	90	T28917281	T51	10/5/22
34	T28917225	HJ10A	10/5/22	91	T28917282	T52	10/5/22
35	T28917226	PB01	10/5/22	92	T28917283	T53	10/5/22
36	T28917227	PB02	10/5/22	93	T28917284	V01	10/5/22
37	T28917228	PB03	10/5/22	94	T28917285	V02	10/5/22
38	T28917229	T01	10/5/22	95	T28917286	V03	10/5/22
39	T28917230	T01G	10/5/22	96	T28917287	V04	10/5/22
40	T28917231	T02	10/5/22	97	T28917288	V05	10/5/22
41	T28917232	T03	10/5/22	98	T28917289	V06	10/5/22
42	T28917233	T04	10/5/22	99	T28917290	V07	10/5/22
43	T28917234	T05	10/5/22				
44	T28917235	T06	10/5/22				
45	T28917236	T07	10/5/22				
46	T28917237	T08	10/5/22				
47	T28917238	T09	10/5/22				
48	T28917239	T10	10/5/22				
49	T28917240	T11	10/5/22				
50	T28917241	T12	10/5/22				
51	T28917242	T13	10/5/22				
52	T28917243	T14	10/5/22				
53	T28917244	T15	10/5/22				
54	T28917245	T16	10/5/22				
55	T28917246	T17	10/5/22				
56	T28917247	T18	10/5/22				
57	T28917248	T19	10/5/22				
58	T28917249	T20	10/5/22				
59	T28917250	T21	10/5/22				
60	T28917251	T22	10/5/22				
61	T28917252	T23	10/5/22				
62	T28917253	T24	10/5/22				
63	T28917254	T25	10/5/22				
64	T28917255	T25G	10/5/22				
65	T28917256	T26	10/5/22				
66	T28917257	T27	10/5/22				
67	T28917258	T28	10/5/22				
68	T28917259	T29	10/5/22				
69	T28917260	T30	10/5/22				
70	T28917261	T31	10/5/22				
71	T28917262	T32	10/5/22				
72	T28917263	T33	10/5/22				
73	T28917264	T34	10/5/22				
74	T28917265	T35	10/5/22				
75	T28917266	T36	10/5/22				
76	T28917267	T37	10/5/22				
77	T28917268	T37G	10/5/22				
78	T28917269	T38	10/5/22				
79	T28917270	T38G	10/5/22				
80	T28917271	T41	10/5/22				
81	T28917272	T42	10/5/22				
82	T28917273	T43	10/5/22				
83	T28917274	T44	10/5/22				
84	T28917275	T45	10/5/22				
85	T28917276	T46	10/5/22				

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917192
3287790	CJ01	Jack-Open	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:23 2022 Page 1
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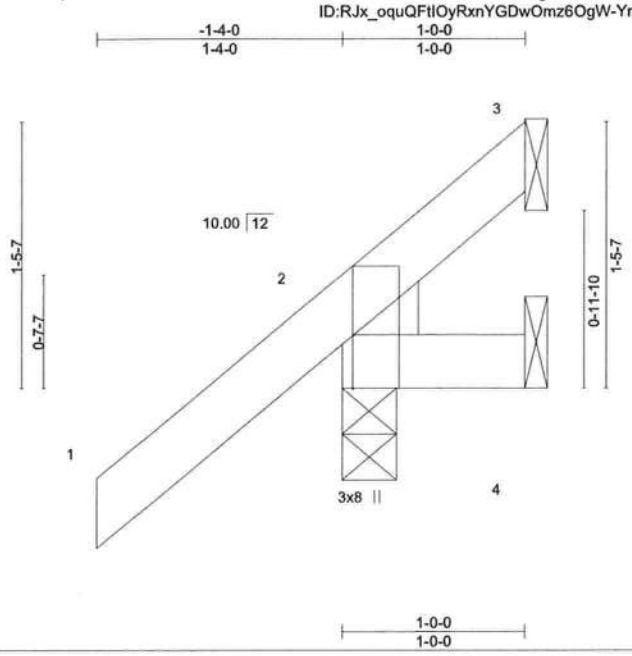

Plate Offsets (X,Y)-- [2:0-3-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.20	Vert(LL)	0.00	7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.03	Vert(CT)	0.00	7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 7 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=61(LC 12)
Max Uplift 3=-8(LC 12), 2=-46(LC 12), 4=-12(LC 1)
Max Grav 3=7(LC 8), 2=157(LC 1), 4=14(LC 16)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 3, 46 lb uplift at joint 2 and 12 lb uplift at joint 4.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.	T28917193
3287790	CJ01A	JACK-OPEN	4	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:24 2022 Page 1
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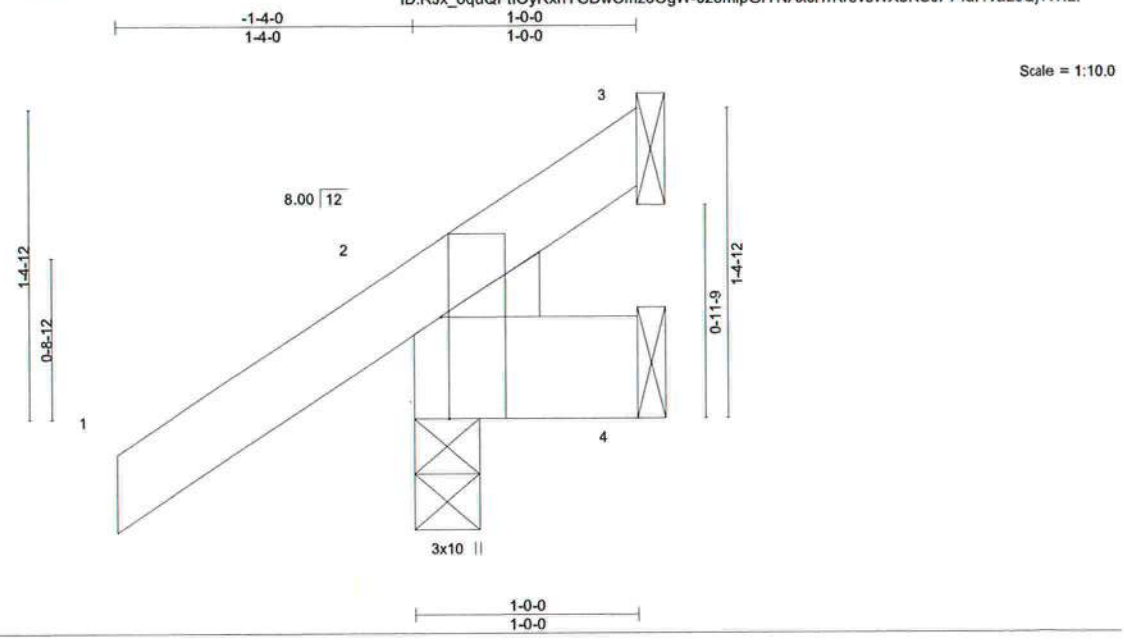

Plate Offsets (X,Y)-- [2:0-5-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.15	Vert(LL)	0.00	7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.01	Vert(CT)	0.00	7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 7 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=49(LC 12)
Max Uplift 3=-7(LC 12), 2=-45(LC 12), 4=-16(LC 19)
Max Grav 3=5(LC 19), 2=157(LC 1), 4=13(LC 16)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 3, 45 lb uplift at joint 2 and 16 lb uplift at joint 4.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	CJ01B	Jack-Open	1	1	T28917194
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:25 2022 Page 1
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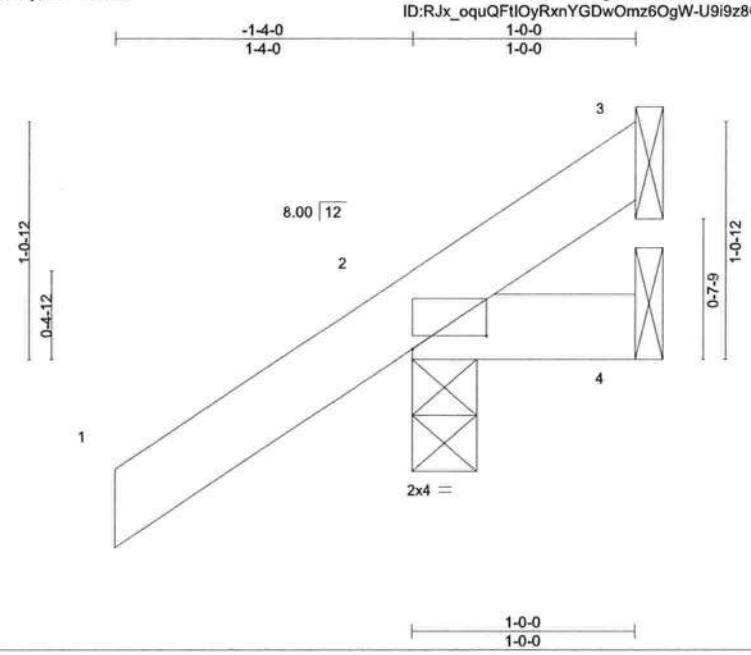

Plate Offsets (X,Y)-- [2:0-4-0,0-0-11]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.15	Vert(LL)	0.00	7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.03	Vert(CT)	0.00	7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 6 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=49(LC 12)
Max Uplift 3=-4(LC 9), 2=-57(LC 12), 4=-16(LC 19)
Max Grav 3=5(LC 8), 2=157(LC 1), 4=18(LC 16)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint 3, 57 lb uplift at joint 2 and 16 lb uplift at joint 4.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917195
3287790	CJ02	Jack-Open	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:25 2022 Page 1
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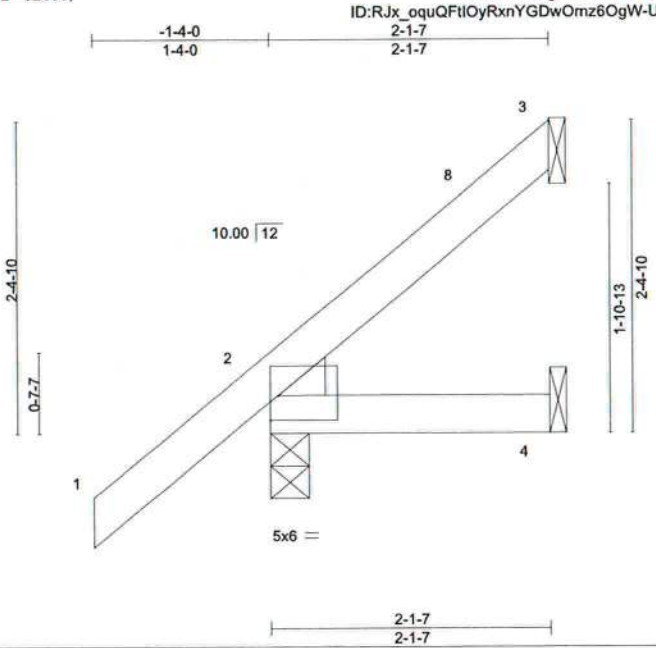

Plate Offsets (X,Y)-- [2:Edge,0-2-5]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.18	Vert(LL)	-0.00	7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.06	Vert(CT)	-0.00	7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 11 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-1-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=92(LC 12)
Max Uplift 3=-37(LC 12), 2=-29(LC 12), 4=-3(LC 12)
Max Grav 3=43(LC 19), 2=171(LC 1), 4=34(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 2-0-11 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 3, 29 lb uplift at joint 2 and 3 lb uplift at joint 4.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	CJ02A	Jack-Open	1	1	T28917196
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:26 2022 Page 1
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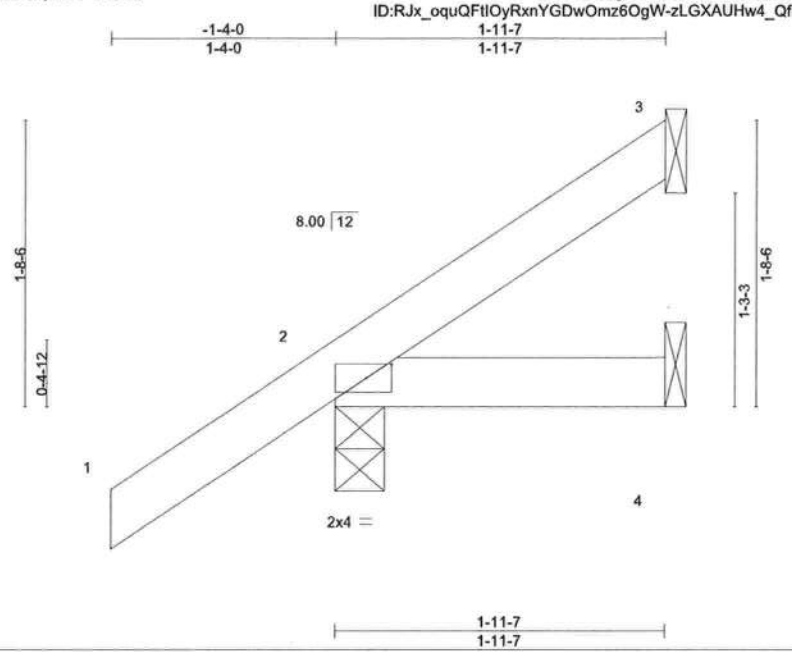

Plate Offsets (X,Y)-- [2:0-1-13,0-1-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.13	Vert(LL)	-0.00	7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.04	Vert(CT)	-0.00	7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 9 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-11-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=71(LC 12)
Max Uplift 3=-25(LC 12), 2=-46(LC 12)
Max Grav 3=37(LC 19), 2=169(LC 1), 4=31(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 3 and 46 lb uplift at joint 2.

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Philip J. O'Regan PE No.58126
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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	CJ02C	Jack-Open	1	1	T28917197
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:27 2022 Page 1
ID:RJx_oquQFtIOyRxnYGDwOmz6OgW-RYqvNqIYrIYWTCmQ?zBcU995hQKlc0Mkjtp?wlyWnLc

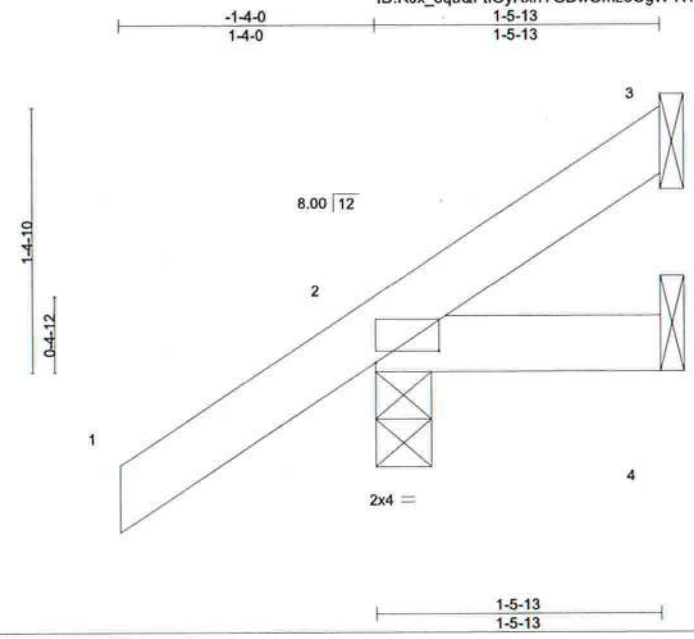

Plate Offsets (X,Y)-- [2:0-4-0,0-0-11]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.14	Vert(LL)	0.00	7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.03	Vert(CT)	-0.00	7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 8 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-5-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=60(LC 12)
Max Uplift 3=-15(LC 12), 2=-49(LC 12)
Max Grav 3=22(LC 19), 2=159(LC 1), 4=22(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 3 and 49 lb uplift at joint 2.

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October 5,2022

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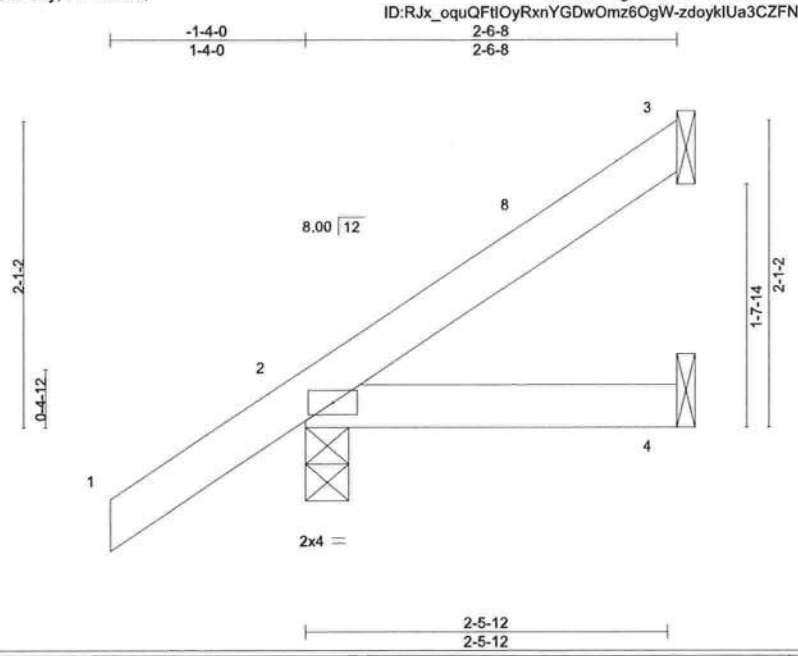
Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917219
3287790	EJ08	Jack-Open	9	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:43 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-zdoyklUa3CZFNg_VxKUM7Xpqnto5MFK5PMhrUqyWnLM



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.13	Vert(LL)	-0.00	7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.06	Vert(CT)	-0.00	4-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 11 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-6-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=83(LC 12)
Max Uplift 3=-36(LC 12), 2=-44(LC 12)
Max Grav 3=54(LC 19), 2=183(LC 1), 4=42(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 2-5-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 3 and 44 lb uplift at joint 2.

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Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	EJ07	Half Hip Girder	1	1	T28917218
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:42 2022 Page 1
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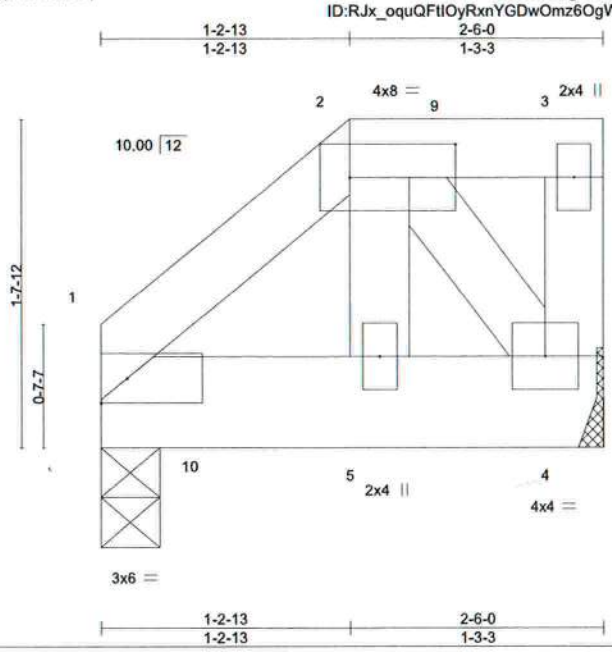

Plate Offsets (X,Y)-- [2:0-6-4,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.03	Vert(LL)	-0.00	8	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.09	Vert(CT)	-0.00	8	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.04	Horz(CT)	0.00	1	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 15 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=0-3-8, 4=Mechanical
Max Horz 1=37(LC 8)
Max Uplift 1=-64(LC 8), 4=-53(LC 8)
Max Grav 1=286(LC 1), 4=143(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 1 and 53 lb uplift at joint 4.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 268 lb down and 71 lb up at 0-6-12, and 49 lb down and 37 lb up at 1-2-13 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
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-2=-54, 2-3=-54, 4-6=-20
Concentrated Loads (lb)
Vert: 5=13(B) 10=-268(F)

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Date:

October 5,2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	EJ06	Jack-Open	2	1	T28917217
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:42 2022 Page 1
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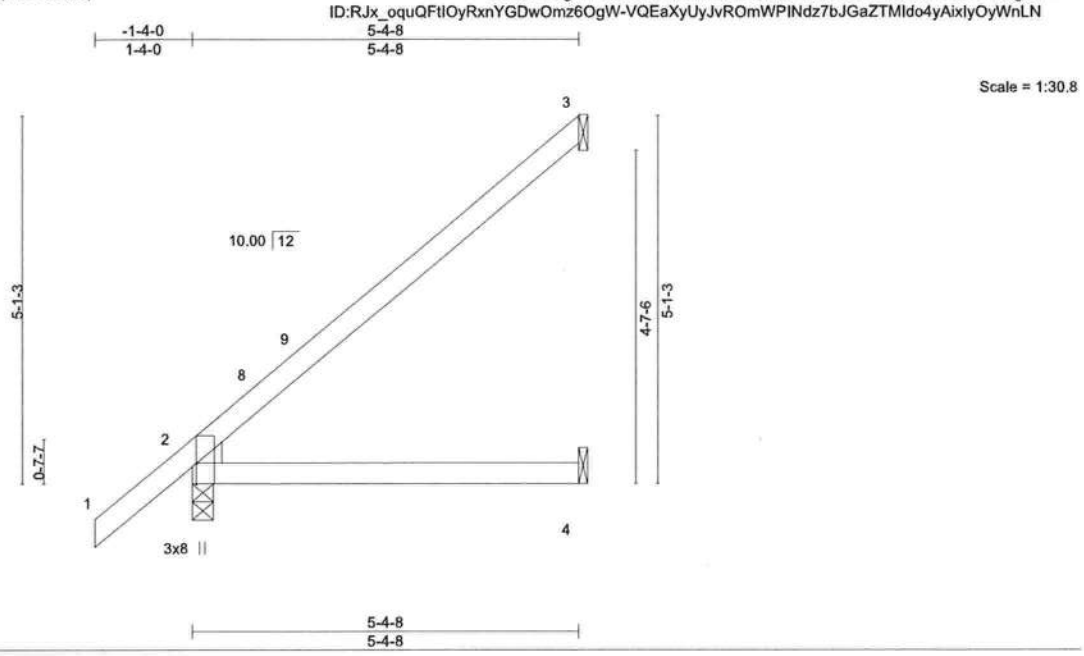

Plate Offsets (X,Y)-- [2:0-3-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.48	Vert(LL)	0.07	4-7	>921	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.41	Vert(CT)	-0.08	4-7	>826	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 22 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=185(LC 12)
Max Uplift 3=-109(LC 12), 2=-15(LC 12), 4=-10(LC 12)
Max Grav 3=136(LC 19), 2=278(LC 1), 4=97(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 5-3-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 109 lb uplift at joint 3, 15 lb uplift at joint 2 and 10 lb uplift at joint 4.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	EJ05	Jack-Open	3	1	T28917216
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:41 2022 Page 1
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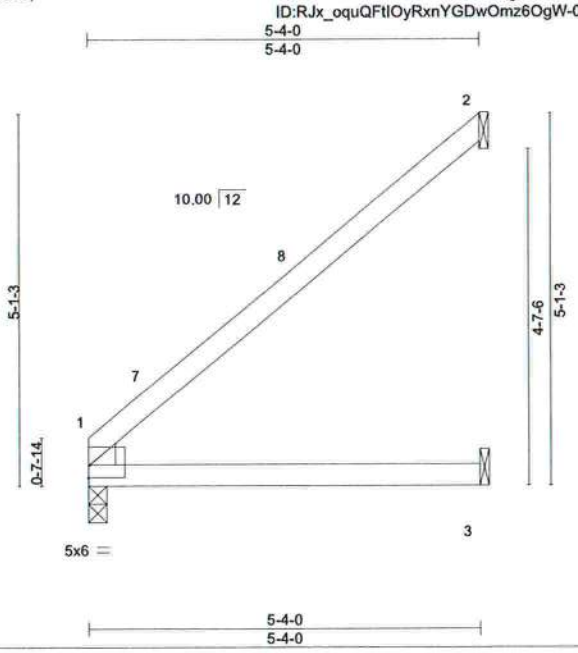

Plate Offsets (X,Y)-- [1:Edge,0-2-2]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.50	Vert(LL)	0.07	3-6	>843	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.45	Vert(CT)	-0.08	3-6	>775	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	2	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MP							Weight: 19 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-4-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=Mechanical, 3=Mechanical, 1=0-3-0
Max Horz 1=151(LC 12)
Max Uplift 2=-112(LC 12), 3=-13(LC 12)
Max Grav 2=139(LC 19), 3=98(LC 3), 1=195(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 5-3-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 112 lb uplift at joint 2 and 13 lb uplift at joint 3.

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October 5,2022

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Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917215
3287790	EJ04	JACK-PARTIAL	2	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:40 2022 Page 1
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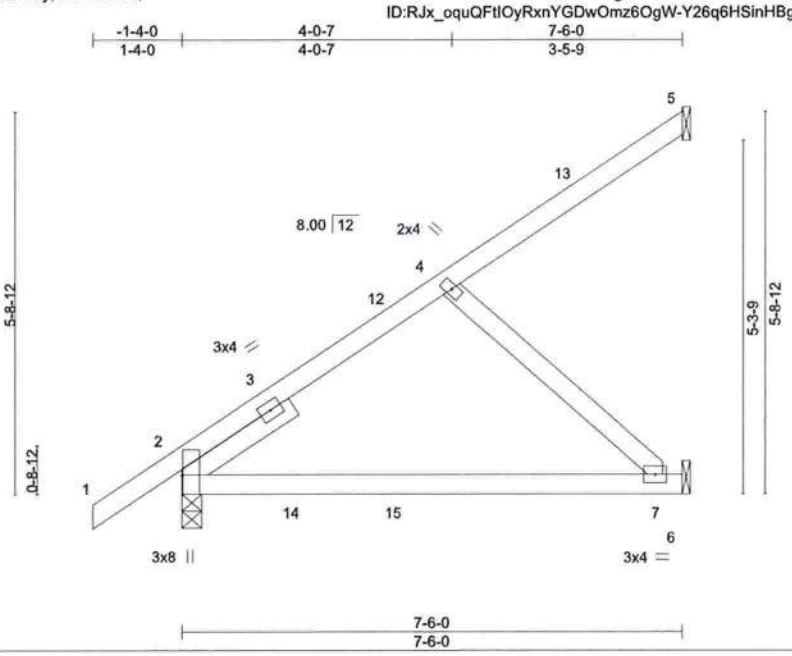

Plate Offsets (X,Y)-- [2:0-3-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.51	Vert(LL)	0.22	7-10	>413	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.54	Vert(CT)	-0.19	7-10	>464	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	-0.02	2	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 36 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-6-8 oc bracing.

REACTIONS. (size) 5=Mechanical, 2=0-3-8, 6=Mechanical
Max Horz 2=187(LC 12)
Max Uplift 5=-39(LC 12), 2=-52(LC 9), 6=-95(LC 9)
Max Grav 5=76(LC 19), 2=354(LC 1), 6=200(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-606/841
WEBS 4-7=-219/292

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 7-5-4 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 5, 52 lb uplift at joint 2 and 95 lb uplift at joint 6.

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Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917214
3287790	EJ03	Half Hip Girder	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:40 2022 Page 1
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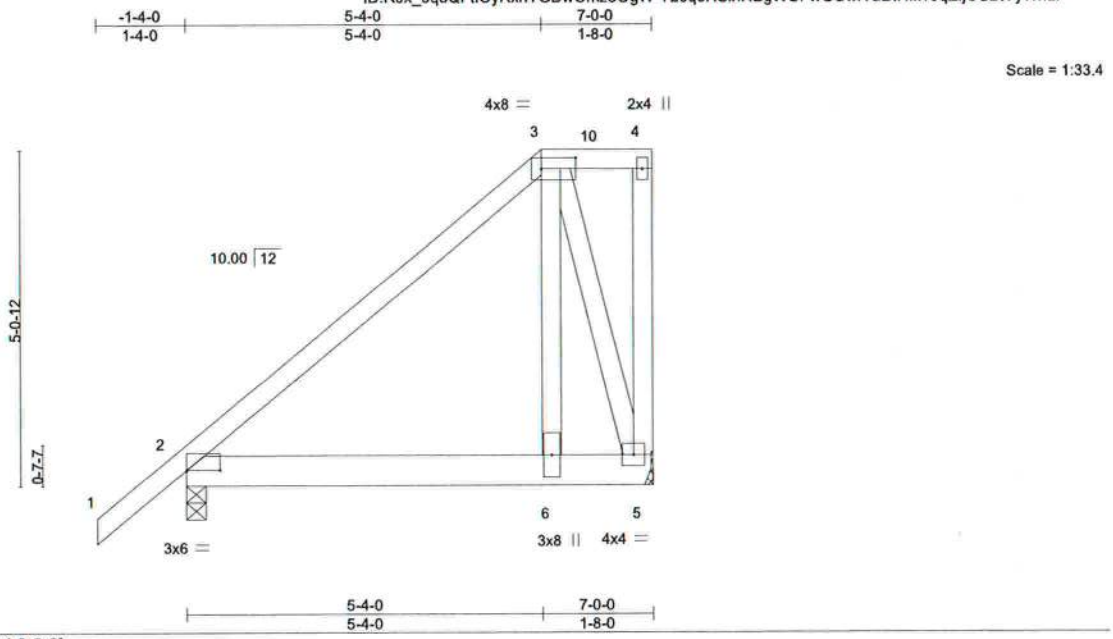

Plate Offsets (X,Y)-- [2:0-6-0,0-0-1], [3:0-6-4,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.27	Vert(LL)	0.02	6-9	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.15	Vert(CT)	-0.02	6-9	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.26	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 52 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-8, 5=Mechanical
Max Horz 2=187(LC 8)
Max Uplift 2=-93(LC 8), 5=-288(LC 8)
Max Grav 2=410(LC 1), 5=544(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-315/69
WEBS 3-6=-131/435, 3-5=-576/334

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 93 lb uplift at joint 2 and 288 lb uplift at joint 5.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 145 lb down and 146 lb up at 5-4-0 on top chord, and 260 lb down and 139 lb up at 5-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-3=-54, 3-4=-54, 5-7=-20
Concentrated Loads (lb)
Vert: 6=-256(F) 3=-119(F)

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	EJ02	Jack-Open Girder	1	1	T28917213
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:39 2022 Page 1
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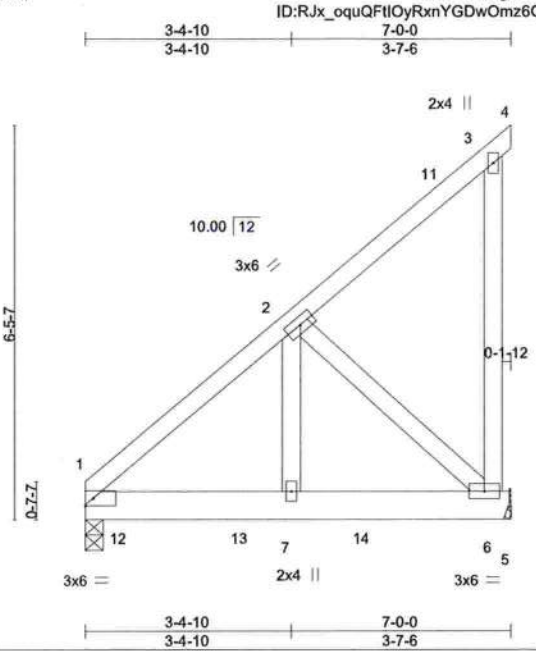

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.15	Vert(LL)	-0.01	7-10	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.27	Vert(CT)	-0.01	7-10	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.27	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 49 lb	FT = 20%

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

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

REACTIONS. (size) 1=0-3-8, 6=Mechanical
Max Horz 1=191(LC 23)
Max Uplift 1=-138(LC 8), 6=-421(LC 8)
Max Grav 1=818(LC 1), 6=1066(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-699/109
BOT CHORD 1-7=-214/514, 6-7=-214/514
WEBS 2-7=-183/683, 2-6=-694/290

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 138 lb uplift at joint 1 and 421 lb uplift at joint 6.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 268 lb down and 71 lb up at 0-6-12, 352 lb down and 122 lb up at 2-6-12, and 332 lb down and 121 lb up at 4-6-12, and 425 lb down and 165 lb up at 6-6-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-3=-54, 3-4=-14, 5-8=-20
Concentrated Loads (lb)
Vert: 6=-425(B) 12=-268(B) 13=-352(B) 14=-332(B)

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917212
3287790	EJ01	Jack-Partial	23	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:38 2022 Page 1
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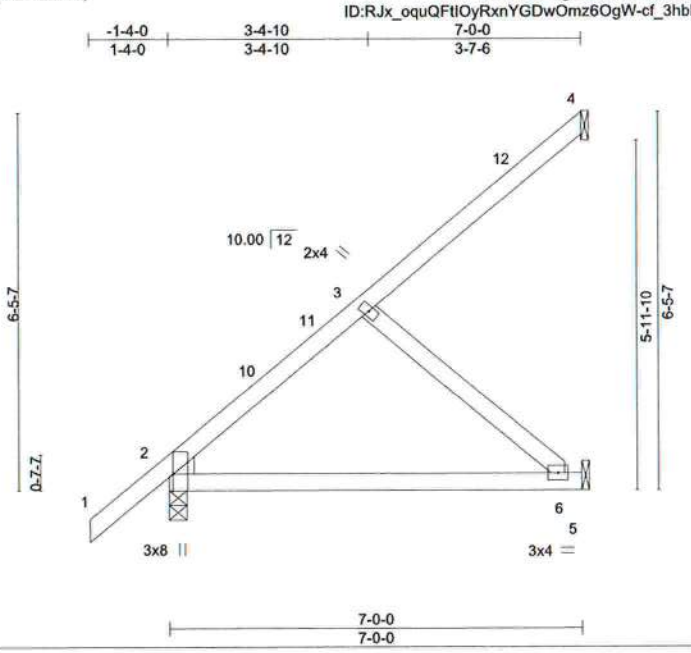

Plate Offsets (X,Y)-- [2:0-3-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.34	Vert(LL)	-0.08	6-9	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.43	Vert(CT)	-0.15	6-9	>547	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 34 lb	FT = 20%

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

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=224(LC 12)
Max Uplift 4=-60(LC 12), 2=-16(LC 12), 5=-81(LC 12)
Max Grav 4=84(LC 19), 2=336(LC 1), 5=189(LC 19)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 6-11-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 lb uplift at joint 4, 16 lb uplift at joint 2 and 81 lb uplift at joint 5.

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Date:

October 5,2022

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Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	CJ07	Jack-Open	4	1	T28917211
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:37 2022 Page 1
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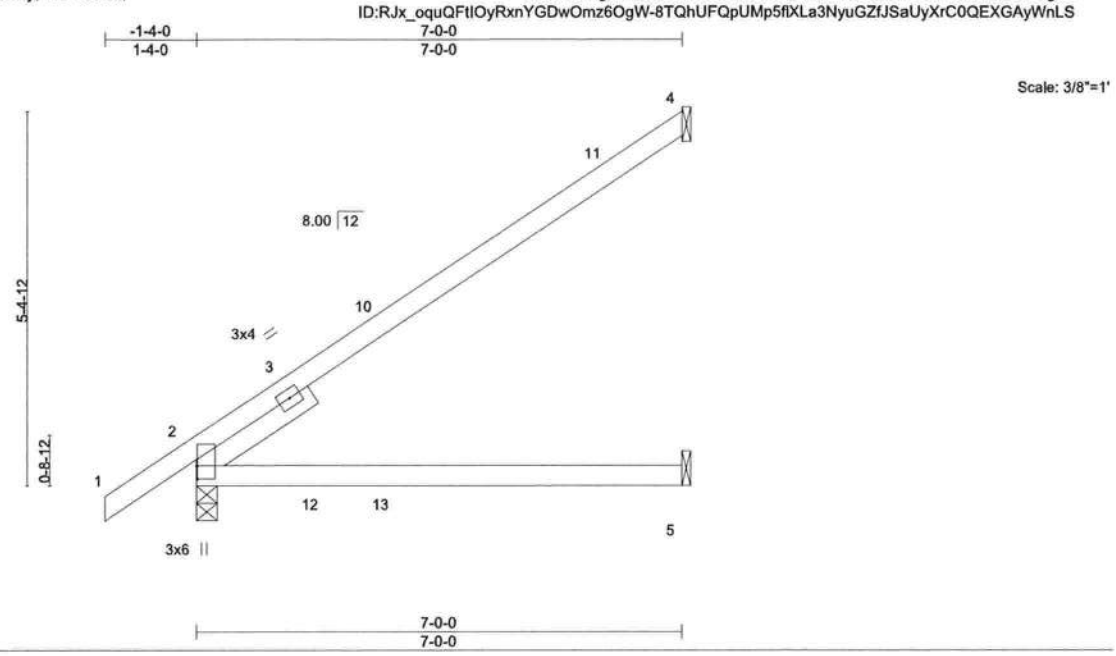

Plate Offsets (X,Y)-- [2:0-2-4,0-0-2]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.77	Vert(LL)	0.32	5-8	>262	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.71	Vert(CT)	0.27	5-8	>308	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.06	4	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 29 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.3 1-11-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-10-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=179(LC 12)
Max Uplift 4=-108(LC 12), 2=-48(LC 9), 5=-44(LC 9)
Max Grav 4=169(LC 19), 2=336(LC 1), 5=126(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-326/248

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 6-11-4 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 108 lb uplift at joint 4, 48 lb uplift at joint 2 and 44 lb uplift at joint 5.

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Date:

October 5,2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917210
3287790	CJ06C	Jack-Open	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:36 2022 Page 1
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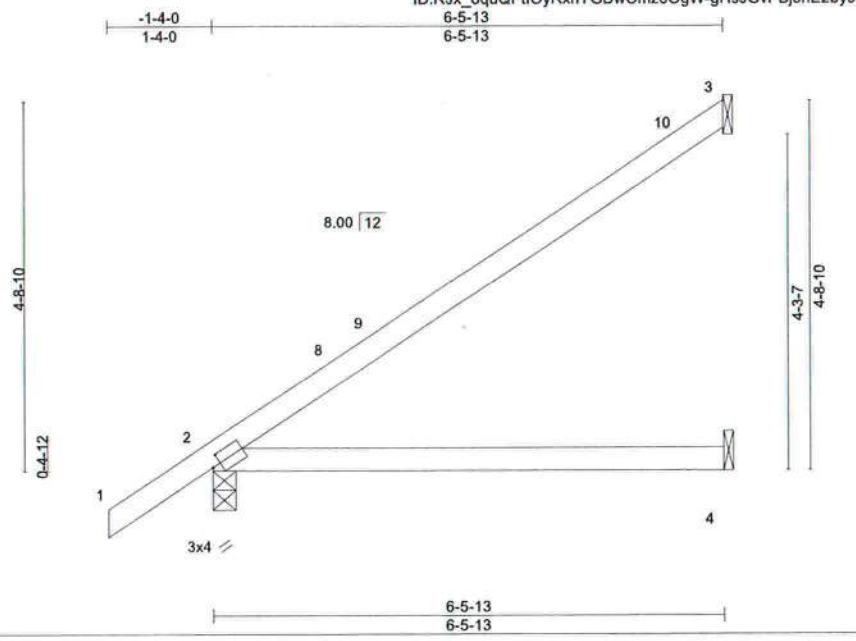

Plate Offsets (X,Y)-- [2:0-1-5,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.54	Vert(LL)	0.09	4-7	>872	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.45	Vert(CT)	-0.16	4-7	>472	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MP							Weight: 24 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=171(LC 12)
Max Uplift 3=-102(LC 12), 2=-48(LC 12), 4=-3(LC 12)
Max Grav 3=161(LC 19), 2=317(LC 1), 4=118(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 6-5-1 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 102 lb uplift at joint 3, 48 lb uplift at joint 2 and 3 lb uplift at joint 4.

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Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	CJ06	Jack-Open	1	1	T28917209
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:36 2022 Page 1
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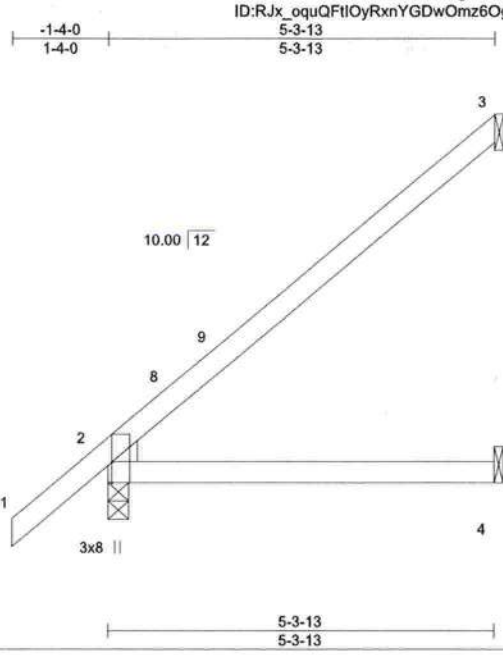

Plate Offsets (X,Y)-- [2:0-3-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.47	Vert(LL)	0.07	4-7	>945	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.41	Vert(CT)	-0.07	4-7	>850	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 22 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-3-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=184(LC 12)
Max Uplift 3=-108(LC 12), 2=-15(LC 12), 4=-10(LC 12)
Max Grav 3=134(LC 19), 2=276(LC 1), 4=96(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 5-3-1 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 108 lb uplift at joint 3, 15 lb uplift at joint 2 and 10 lb uplift at joint 4.

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Date:

October 5,2022

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Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.	T28917208
3287790	CJ05C	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:35 2022 Page 1
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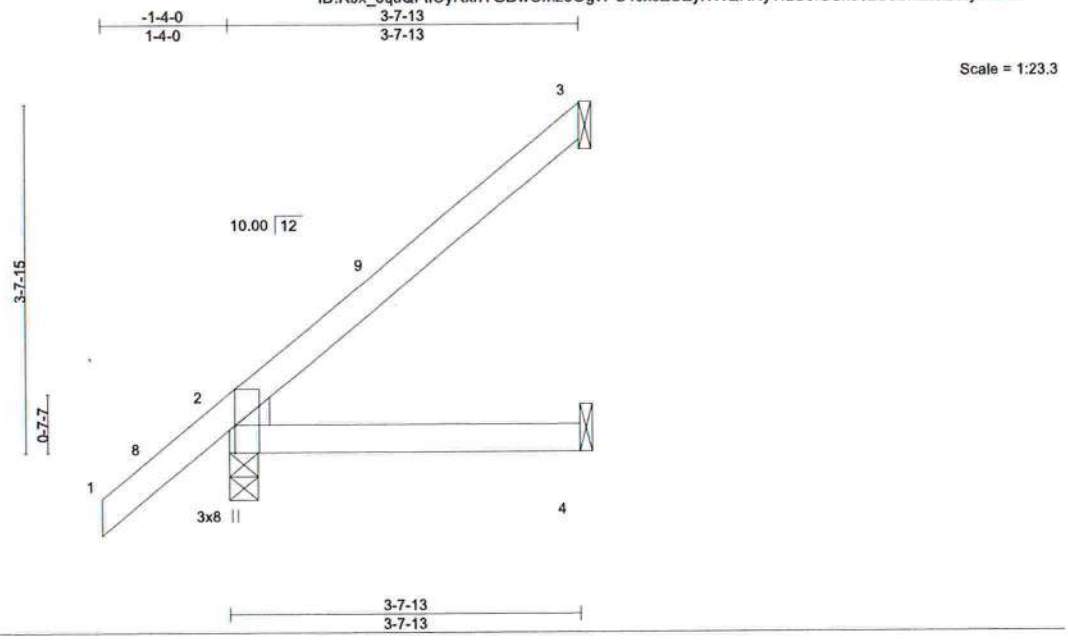

Plate Offsets (X,Y)-- [2:0-3-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.20	Vert(LL)	0.02	4-7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.20	Vert(CT)	-0.02	4-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 16 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-7-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=136(LC 12)
Max Uplift 3=-72(LC 12), 2=-21(LC 12), 4=-7(LC 12)
Max Grav 3=88(LC 19), 2=218(LC 1), 4=64(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 3-7-1 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 72 lb uplift at joint 3, 21 lb uplift at joint 2 and 7 lb uplift at joint 4.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	CJ05A	JACK-OPEN	4	1	T28917207
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:34 2022 Page 1
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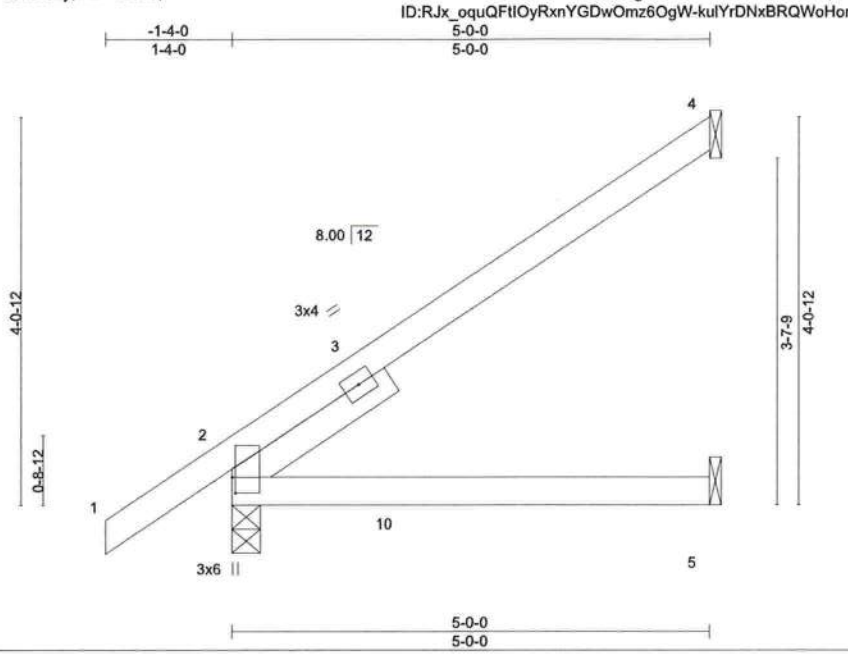

Plate Offsets (X,Y)-- [2:0-2-0,0-0-6]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.39	Vert(LL)	0.09	5-8	>663	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.38	Vert(CT)	0.08	5-8	>761	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	4	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 22 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.3 1-11-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=139(LC 12)
Max Uplift 4=-86(LC 12), 2=-36(LC 9), 5=-32(LC 9)
Max Grav 4=118(LC 19), 2=264(LC 1), 5=88(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 4-11-4 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 86 lb uplift at joint 4, 36 lb uplift at joint 2 and 32 lb uplift at joint 5.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917206
3287790	CJ05	JACK-OPEN	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:34 2022 Page 1
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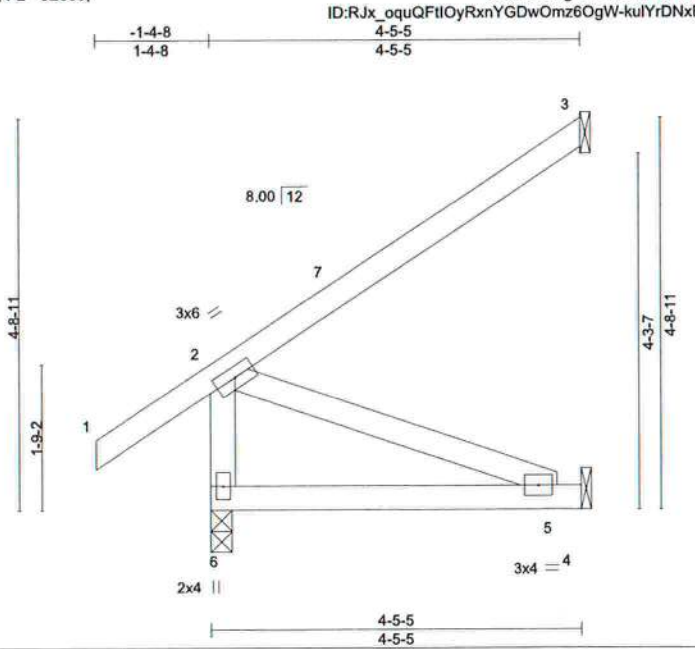

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.23	Vert(LL)	-0.02	5-6	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.22	Vert(CT)	-0.04	5-6	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 25 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

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

REACTIONS. (size) 6=0-3-0, 3=Mechanical, 4=Mechanical
Max Horz 6=109(LC 12)
Max Uplift 6=-9(LC 12), 3=-78(LC 12), 4=-30(LC 12)
Max Grav 6=254(LC 1), 3=107(LC 19), 4=85(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 4-4-9 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 6, 78 lb uplift at joint 3 and 30 lb uplift at joint 4.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	CJ04C	Jack-Open	1	1	T28917205
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:33 2022 Page 1
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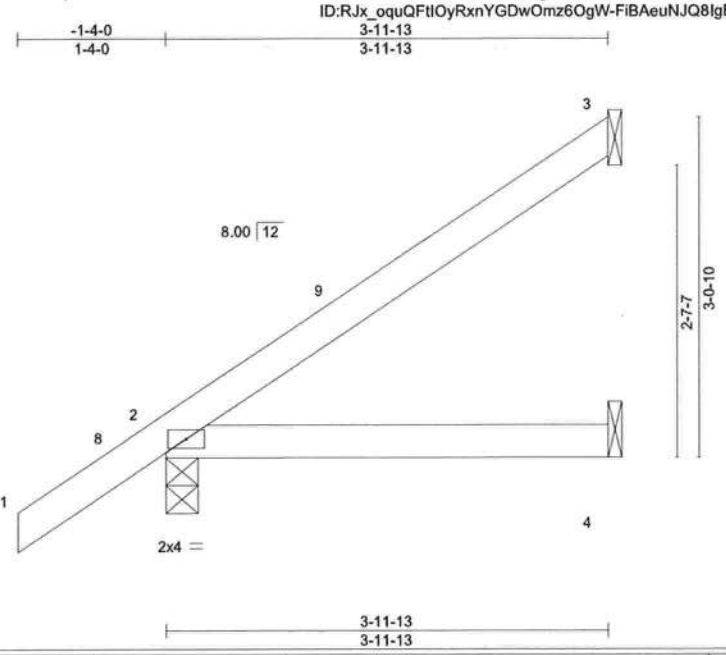

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.17	Vert(LL)	-0.01	4-7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.15	Vert(CT)	-0.02	4-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 16 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-11-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=116(LC 12)
Max Uplift 3=-63(LC 12), 2=-43(LC 12), 4=-1(LC 12)
Max Grav 3=94(LC 19), 2=229(LC 1), 4=70(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 3-11-1 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 63 lb uplift at joint 3, 43 lb uplift at joint 2 and 1 lb uplift at joint 4.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917204
3287790	CJ04B	Jack-Open	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:32 2022 Page 1
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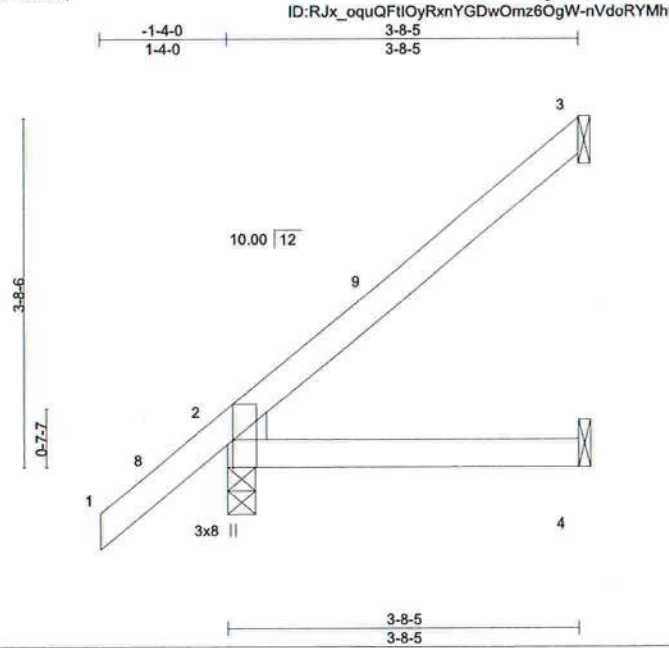

Plate Offsets (X,Y)-- [2:0-3-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.20	Vert(LL)	0.02	4-7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.20	Vert(CT)	-0.02	4-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 16 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-8-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=137(LC 12)
Max Uplift 3=-73(LC 12), 2=-20(LC 12), 4=-7(LC 12)
Max Grav 3=89(LC 19), 2=220(LC 1), 4=65(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 3-7-9 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 73 lb uplift at joint 3, 20 lb uplift at joint 2 and 7 lb uplift at joint 4.

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MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	CJ04A	Jack-Open	1	1	T28917203
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:32 2022 Page 1
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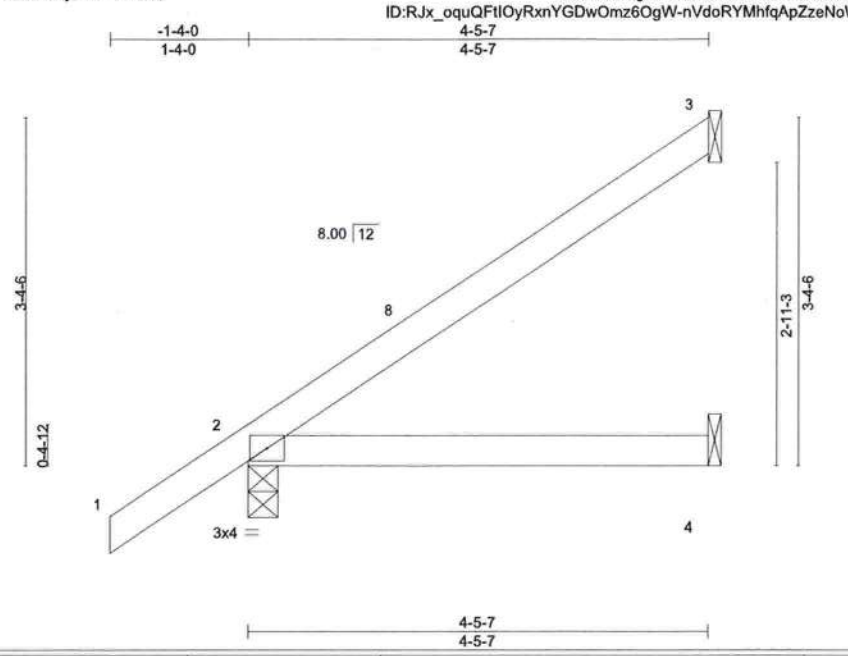

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.22	Vert(LL)	-0.02	4-7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.19	Vert(CT)	-0.03	4-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 17 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-5-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=127(LC 12)
Max Uplift 3=-72(LC 12), 2=-43(LC 12), 4=-1(LC 12)
Max Grav 3=107(LC 19), 2=245(LC 1), 4=79(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 4-4-11 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 72 lb uplift at joint 3, 43 lb uplift at joint 2 and 1 lb uplift at joint 4.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917202
3287790	CJ04	Jack-Open	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:31 2022 Page 1
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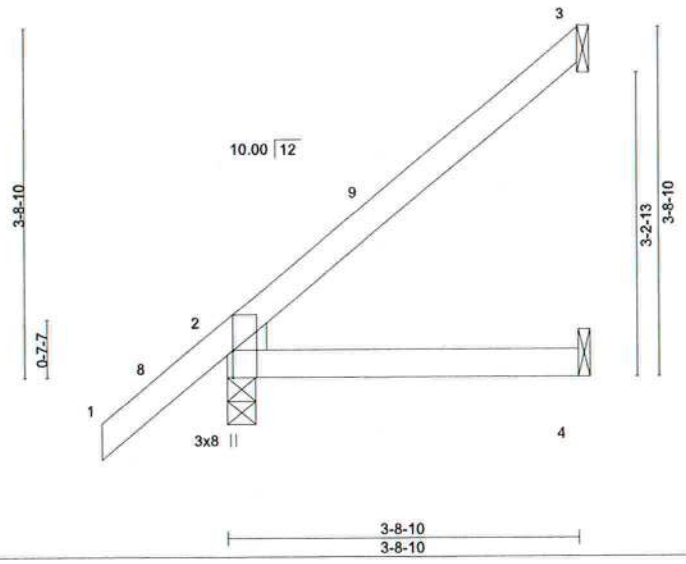

3-8-10 / 3-8-10

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.21	Vert(LL)	0.02	4-7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.20	Vert(CT)	-0.02	4-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 16 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=138(LC 12)
Max Uplift 3=-73(LC 12), 2=-20(LC 12), 4=-7(LC 12)
Max Grav 3=90(LC 19), 2=220(LC 1), 4=66(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 3-7-14 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 73 lb uplift at joint 3, 20 lb uplift at joint 2 and 7 lb uplift at joint 4.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917201
3287790	CJ03C	Jack-Open	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:30 2022 Page 1
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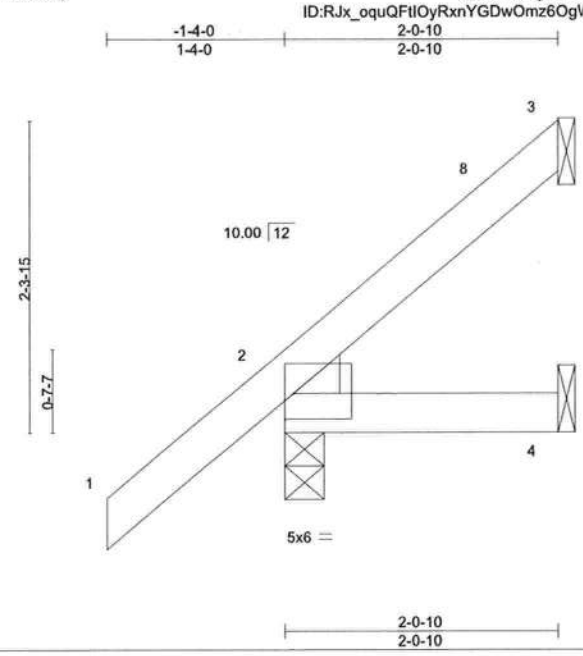

Plate Offsets (X,Y)-- [2:Edge,0-2-5]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.18	Vert(LL)	-0.00	7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.05	Vert(CT)	-0.00	7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 10 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-0-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=90(LC 12)
Max Uplift 3=-36(LC 12), 2=-30(LC 12), 4=-2(LC 12)
Max Grav 3=41(LC 19), 2=170(LC 1), 4=33(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 1-11-14 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 3, 30 lb uplift at joint 2 and 2 lb uplift at joint 4.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917200
3287790	CJ03B	Jack-Open	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:29 2022 Page 1
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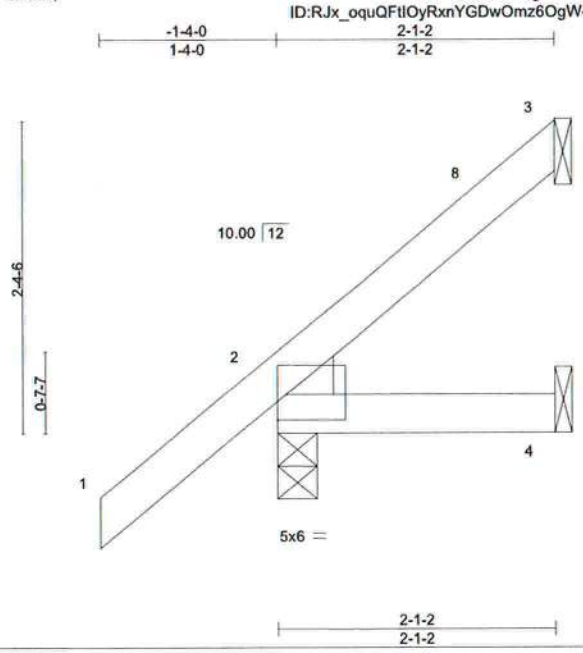

Plate Offsets (X,Y)-- [2:Edge,0-2-5]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.18	Vert(LL)	-0.00	7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.05	Vert(CT)	-0.00	7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 11 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-1-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=91(LC 12)
Max Uplift 3=-37(LC 12), 2=-30(LC 12), 4=-3(LC 12)
Max Grav 3=42(LC 19), 2=171(LC 1), 4=34(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 2-0-6 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 3, 30 lb uplift at joint 2 and 3 lb uplift at joint 4.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917199
3287790	CJ03A	JACK-OPEN	4	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:29 2022 Page 1
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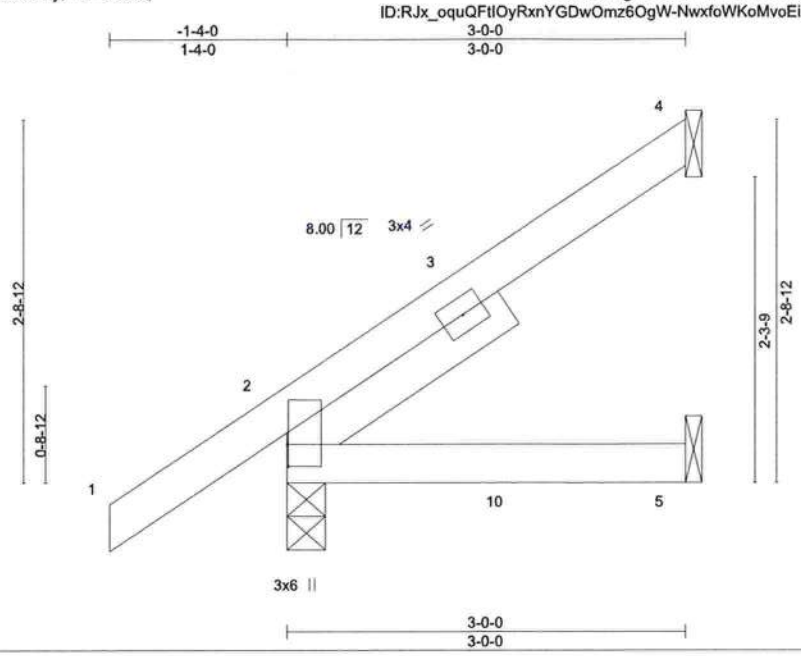

Plate Offsets (X,Y)-- [2:0-2-0,0-0-2]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.15	Vert(LL)	0.01	5-8	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.12	Vert(CT)	-0.01	5-8	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	2	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 15 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.3 1-11-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=94(LC 12)
Max Uplift 4=-51(LC 12), 2=-32(LC 12), 5=-18(LC 9)
Max Grav 4=65(LC 19), 2=197(LC 1), 5=49(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 2-11-4 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 51 lb uplift at joint 4, 32 lb uplift at joint 2 and 18 lb uplift at joint 5.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917198
3287790	CJ03	JACK-OPEN	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:28 2022 Page 1
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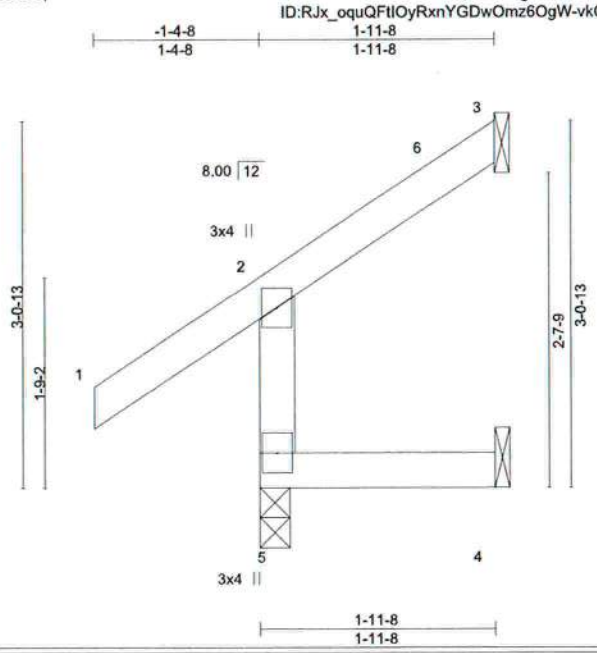

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.33	Vert(LL)	-0.00	4-5	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.17	Vert(CT)	-0.00	4-5	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MR							Weight: 11 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-11-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-0, 3=Mechanical, 4=Mechanical
Max Horz 5=66(LC 9)
Max Uplift 5=-5(LC 12), 3=-44(LC 12), 4=-19(LC 12)
Max Grav 5=183(LC 1), 3=36(LC 19), 4=35(LC 10)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 1-11-6 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 5, 44 lb uplift at joint 3 and 19 lb uplift at joint 4.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	T08	Half Hip	1	1	T28917237
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:02 2022 Page 1
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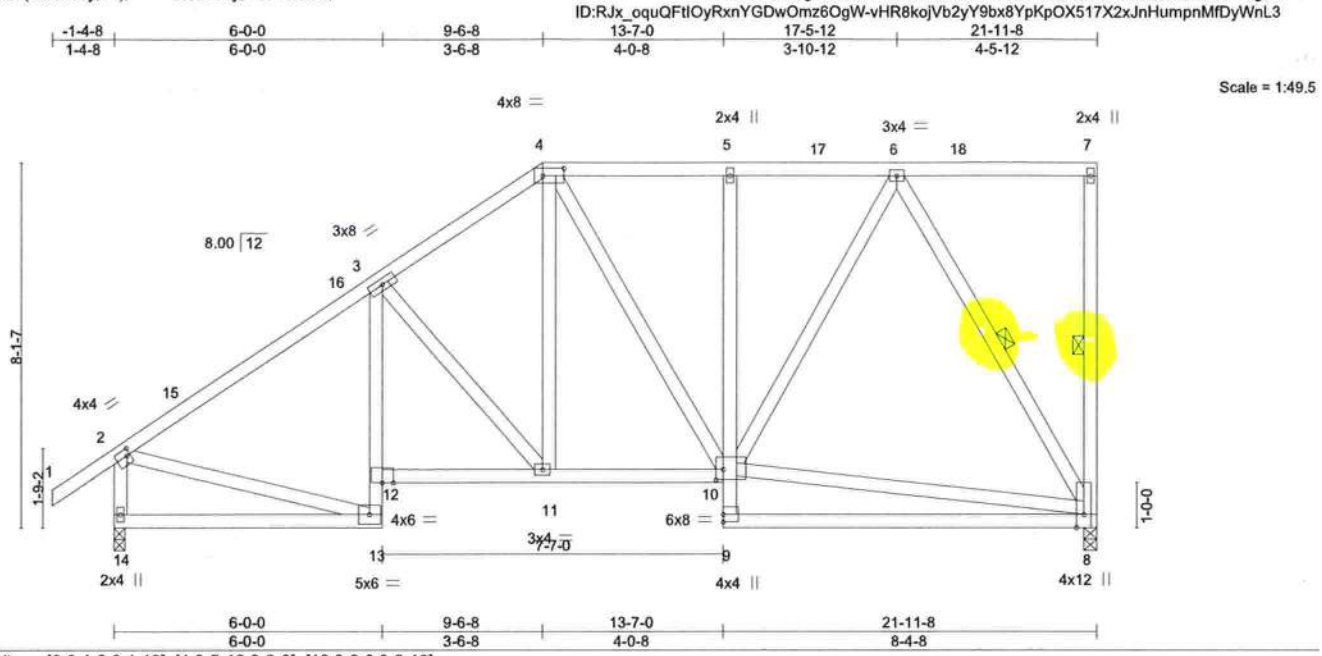

Plate Offsets (X,Y)-- [2:0-1-0,0-1-12], [4:0-5-12,0-2-0], [10:0-2-0,0-2-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.38	Vert(LL)	-0.16	8-9	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.99	Vert(CT)	-0.33	8-9	>777	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.15	8	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 175 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
5-9: 2x4 SP No.3
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 7-8, 6-8

REACTIONS. (size) 8=0-3-8, 14=0-3-0
Max Horz 14=228(LC 12)
Max Uplift 8=-215(LC 9), 14=-190(LC 12)
Max Grav 8=799(LC 1), 14=887(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-894/195, 3-4=-830/254, 4-5=-601/194, 5-6=-597/193, 2-14=-857/220
BOT CHORD 13-14=-264/163, 11-12=-338/749, 10-11=-239/638
WEBS 4-11=-127/336, 8-10=-120/267, 6-10=-170/472, 6-8=-746/234, 2-13=-38/618

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 9-6-8, Exterior(2R) 9-6-8 to 13-8-12, Interior(1) 13-8-12 to 21-9-12 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=215, 14=190.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917236
3287790	T07	HALF HIP GIRDER	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:01 2022 Page 2
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-R4tmWSitqkqhYRMy_6oasKZso7rcaFDIY92o7nyWnL4

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 11=-400(B) 9=-154(B) 6=-22(B) 14=-22(B) 15=-22(B) 16=-22(B) 18=-22(B) 19=-22(B) 20=-22(B) 21=-154(B) 22=-154(B) 23=-154(B) 24=-154(B) 25=-154(B) 26=-154(B)

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.	T28917236
3287790	T07	HALF HIP GIRDER	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:01 2022 Page 1
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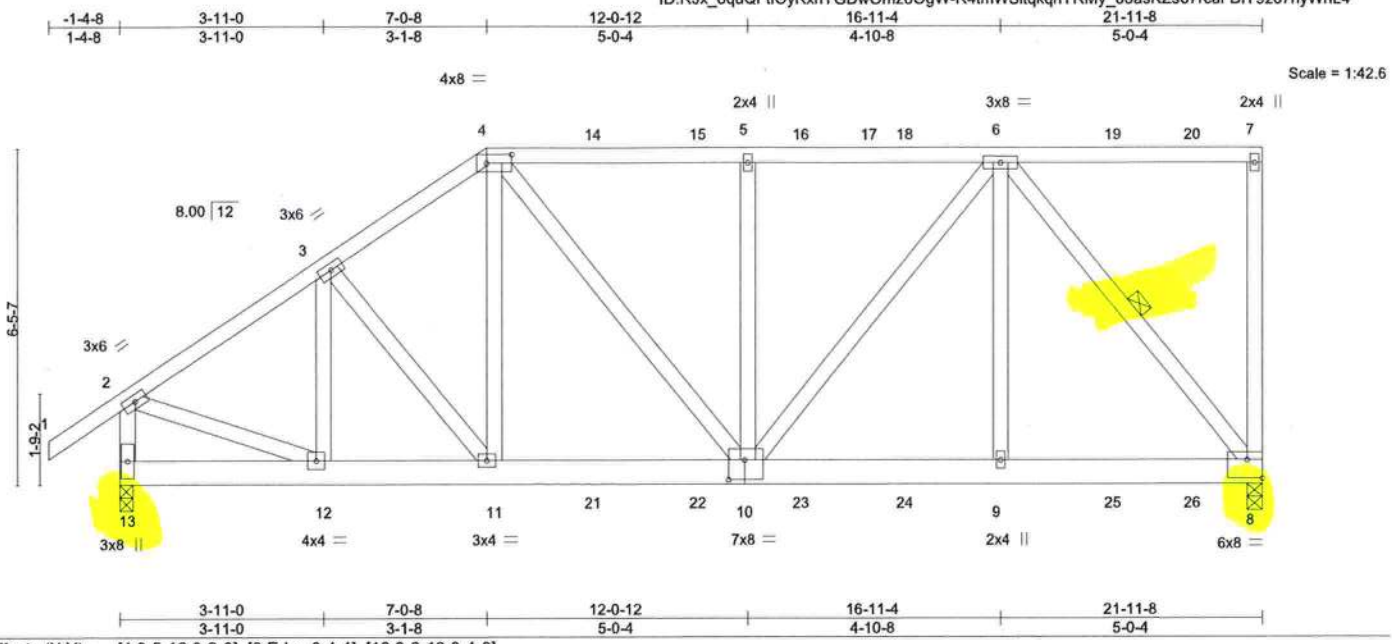

Plate Offsets (X,Y)-- [4:0-5-12,0-2-0], [8:Edge,0-4-4], [10:0-3-12,0-4-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.35	Vert(LL)	0.06	10-11	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.42	Vert(CT)	-0.09	10-11	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.61	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 175 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-3-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-4-7 oc bracing.
WEBS 1 Row at midpt 6-8

REACTIONS. (size) 8=0-3-8, 13=0-3-0
Max Horz 13=172(LC 8)
Max Uplift 8=-891(LC 5), 13=-675(LC 8)
Max Grav 8=1773(LC 1), 13=1543(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1553/718, 3-4=-1714/879, 4-5=-1609/839, 5-6=-1613/841, 2-13=-1484/672
BOT CHORD 11-12=-704/1239, 10-11=-766/1395, 9-10=-587/1163, 8-9=-587/1163
WEBS 3-12=-450/247, 3-11=-293/335, 4-11=-276/502, 4-10=-220/395, 5-10=-338/223, 6-10=-407/714, 6-9=-211/594, 6-8=-1838/926, 2-12=-540/1280

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=891, 13=675.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 72 lb down and 61 lb up at 9-1-4, 72 lb down and 61 lb up at 11-1-4, 72 lb down and 61 lb up at 13-1-4, 72 lb down and 59 lb up at 15-1-4, 72 lb down and 61 lb up at 17-1-4, and 72 lb down and 61 lb up at 19-1-4, and 72 lb down and 61 lb up at 20-7-4 on top chord, and 422 lb down and 327 lb up at 7-0-8, 158 lb down and 101 lb up at 9-1-4, 158 lb down and 101 lb up at 11-1-4, 158 lb down and 101 lb up at 13-1-4, 158 lb down and 101 lb up at 15-1-4, 158 lb down and 101 lb up at 17-1-4, and 158 lb down and 101 lb up at 19-1-4, and 158 lb down and 101 lb up at 20-7-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-2=-54, 2-4=-54, 4-7=-54, 8-13=-20

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917235
3287790	T06	Half Hip	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:59 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-VIl?5nhdI7azI7CZthm6nvTTmJ3x6IYS4rZi2vyWnL6

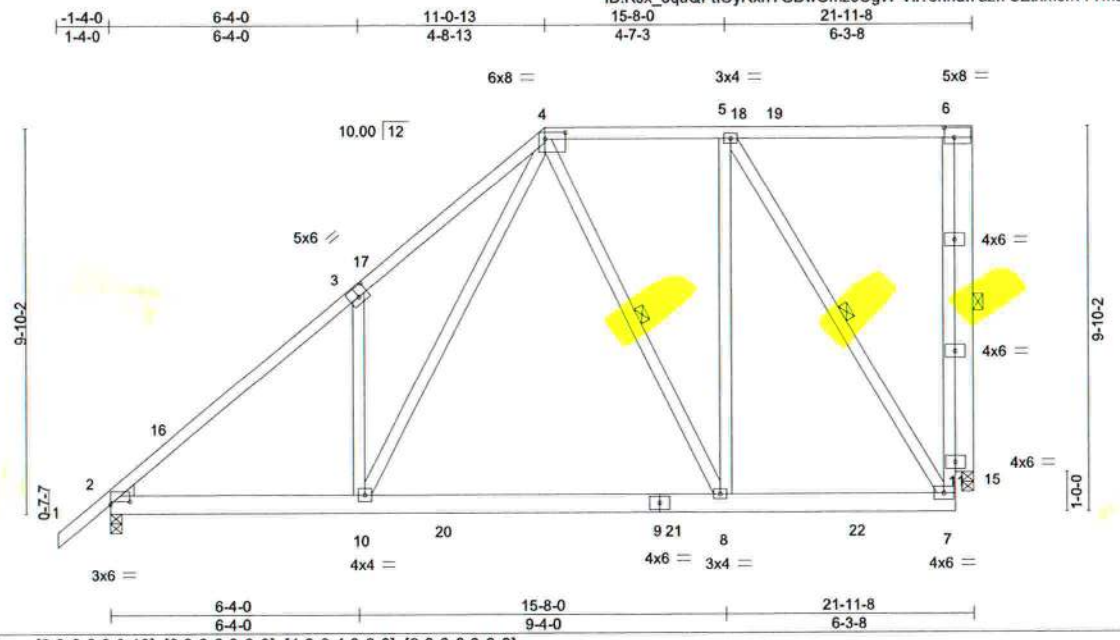

Plate Offsets (X,Y)-- [2:0-6-0,0-0-13], [3:0-3-0,0-3-0], [4:0-6-4,0-2-0], [6:0-3-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.51	Vert(LL)	-0.17	8-10	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.82	Vert(CT)	-0.32	8-10	>809	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.82	Horz(CT)	0.03	15	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 192 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-4-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-8, 5-7, 6-15

REACTIONS. (size) 2=0-3-8, 15=0-3-8
Max Horz 2=352(LC 12)
Max Uplift 2=-241(LC 12), 15=-289(LC 12)
Max Grav 2=1262(LC 19), 15=1147(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1622/290, 3-4=-1666/500, 4-5=-673/187, 7-11=-263/1033, 6-11=-263/1033
BOT CHORD 2-10=-436/1236, 8-10=-257/732, 7-8=-187/673
WEBS 3-10=-336/290, 4-10=-390/1116, 5-8=-179/866, 5-7=-1180/333, 6-15=-1149/290

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 11-0-13, Exterior(2R) 11-0-13 to 15-3-11, Interior(1) 15-3-11 to 21-4-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Bearing at joint(s) 15 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=241, 15=289.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-54, 4-6=-54, 10-12=-20, 8-10=-80(F=-60), 7-8=-20

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	T05	Roof Special	1	1	T28917234
					Job Reference (optional)

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-4=-54, 4-5=-54, 5-8=-54, 12-14=-20, 10-12=-80(F=-60), 9-10=-20

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917234
3287790	T05	Roof Special	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:58 2022 Page 1
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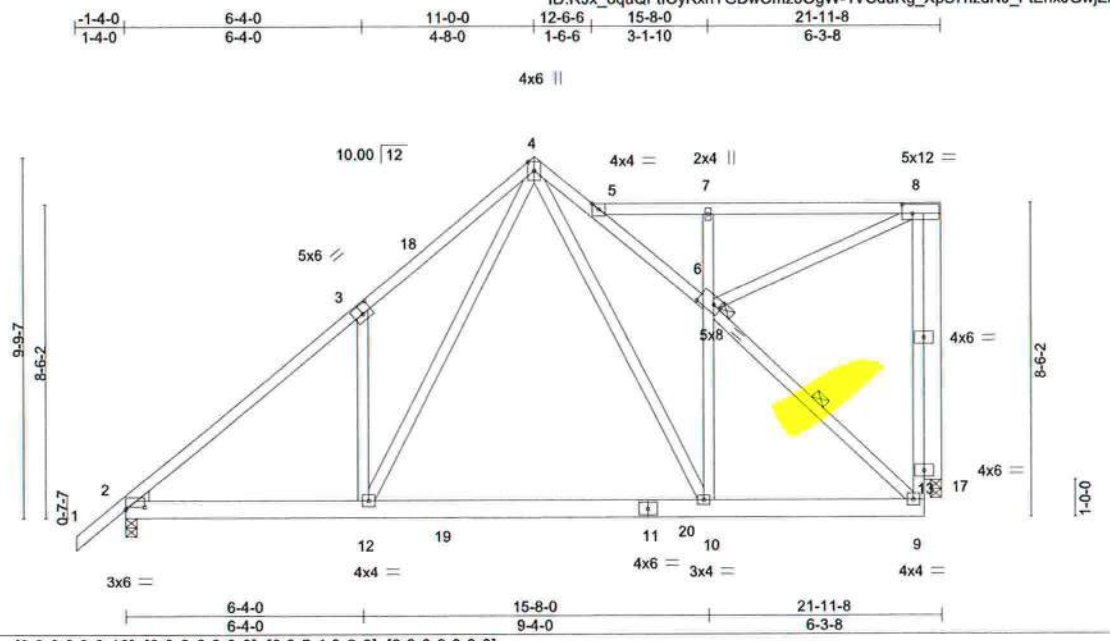

Plate Offsets (X,Y)-- [2:0-6-0,0-0-13], [3:0-3-0,0-3-0], [6:0-5-4,0-2-8], [8:0-3-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.50	Vert(LL)	-0.18	10-12	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.83	Vert(CT)	-0.33	10-12	>785	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.79	Horz(CT)	0.03	17	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 196 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-3-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-9
JOINTS 1 Brace at Jt(s): 6

REACTIONS. (size) 2=0-3-8, 17=0-3-8
Max Horz 2=324(LC 12)
Max Uplift 2=-223(LC 12), 17=-266(LC 13)
Max Grav 2=1278(LC 19), 17=1135(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1648/264, 3-4=-1670/467, 4-5=-1274/315, 5-6=-1077/294, 5-7=-253/62, 7-8=-257/63, 9-13=-196/956, 8-13=-196/956
BOT CHORD 2-12=-388/1262, 10-12=-213/772, 9-10=-247/1062
WEBS 3-12=-303/282, 4-12=-383/1090, 4-10=-179/736, 6-7=-332/154, 6-9=-1373/315, 8-17=-1138/267

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 11-0-0, Exterior(2E) 11-0-0 to 12-5-12, Interior(1) 12-5-12 to 21-4-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Bearing at joint(s) 17 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=223, 17=266.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
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

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917233
3287790	T04	Roof Special	1	1	Job Reference (optional)

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-4=-54, 4-5=-54, 5-8=-54, 12-14=-20, 10-12=-80(F=-60), 9-10=-20

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.	T28917233
3287790	T04	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:57 2022 Page 1
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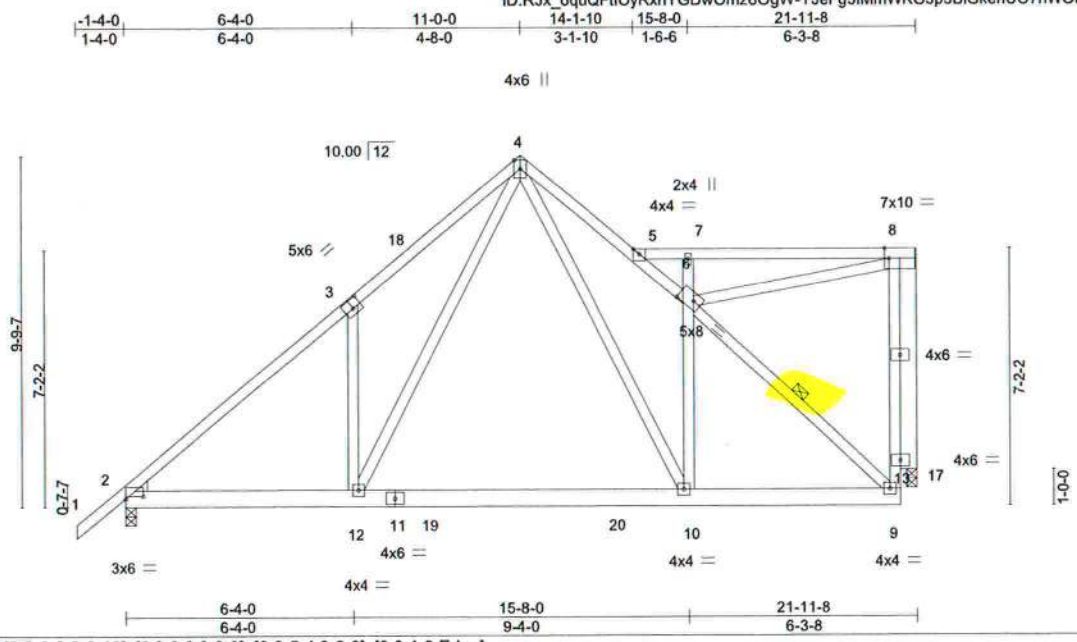

Plate Offsets (X,Y)-- [2:0-6-0,0-0-13], [3:0-3-0,0-3-0], [6:0-5-4,0-2-8], [8:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.55	Vert(LL)	-0.18	10-12	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.83	Vert(CT)	-0.34	10-12	>773	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.79	Horz(CT)	0.03	17	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 185 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-4-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-9

REACTIONS. (size) 2=0-3-8, 17=0-3-8
Max Horz 2=298(LC 12)
Max Uplift 2=-232(LC 12), 17=-250(LC 13)
Max Grav 2=1274(LC 19), 17=1138(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1645/278, 3-4=-1673/482, 4-5=-1507/389, 5-6=-1332/378, 9-13=-200/1024, 8-13=-200/1024
BOT CHORD 2-12=-372/1270, 10-12=-197/774, 9-10=-253/1156
WEBS 3-12=-314/284, 4-10=-256/916, 6-9=-1475/320, 6-10=-266/195, 6-7=-344/160, 4-12=-385/1103, 8-17=-1142/252

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 11-0-0, Exterior(2E) 11-0-0 to 14-1-0, Interior(1) 14-1-0 to 21-4-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Bearing at joint(s) 17 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=232, 17=250.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
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

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917232
3287790	T03	Roof Special	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:56 2022 Page 1
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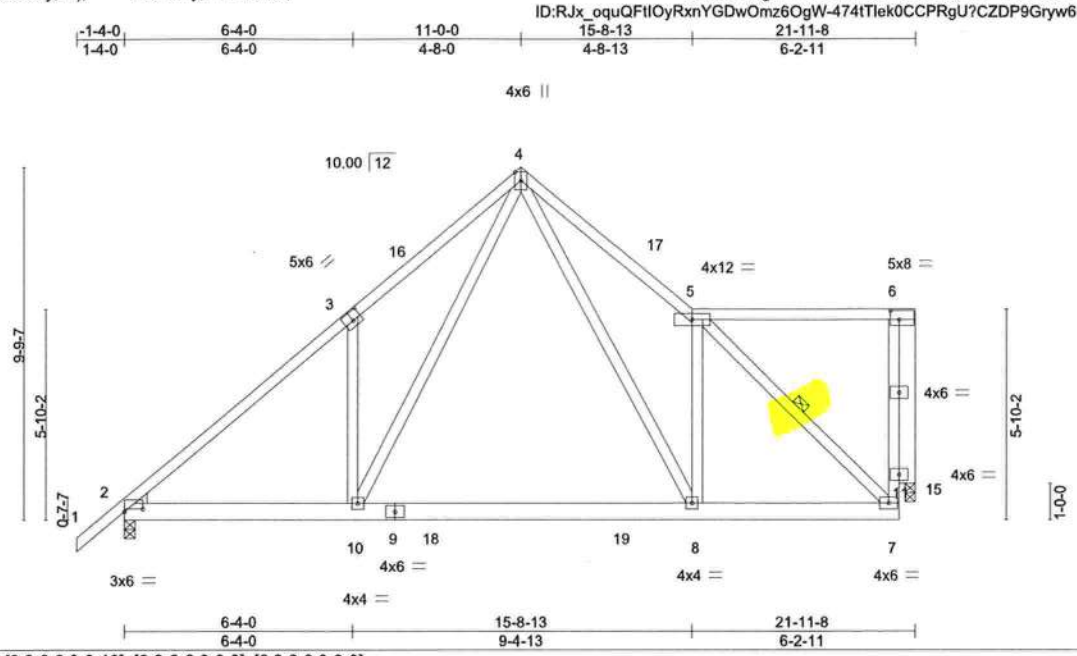

Plate Offsets (X,Y)-- [2:0-6-0,0-0-13], [3:0-3-0,0-3-0], [6:0-3-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.61	Vert(LL)	-0.19	8-10	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.86	Vert(CT)	-0.36	8-10	>726	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.79	Horz(CT)	0.03	15	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 168 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-3-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-7

REACTIONS. (size) 2=0-3-8, 15=0-3-8
Max Horz 2=272(LC 12)
Max Uplift 2=-241(LC 12), 15=-240(LC 13)
Max Grav 2=1276(LC 19), 15=1151(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1654/292, 3-4=-1685/494, 4-5=-1592/400, 7-11=-185/1043, 6-11=-185/1043
BOT CHORD 2-10=-356/1287, 8-10=-180/781, 7-8=-236/1191
WEBS 3-10=-317/283, 4-10=-385/1124, 4-8=-259/944, 5-7=-1502/299, 6-15=-1158/242

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 11-0-0, Exterior(2R) 11-0-0 to 14-0-0, Interior(1) 14-0-0 to 21-4-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Bearing at joint(s) 15 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=241, 15=240.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-54, 4-5=-54, 5-6=-54, 10-12=-20, 8-10=-80(F=-60), 7-8=-20

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	T02	Common	1	1	T28917231
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:55 2022 Page 1
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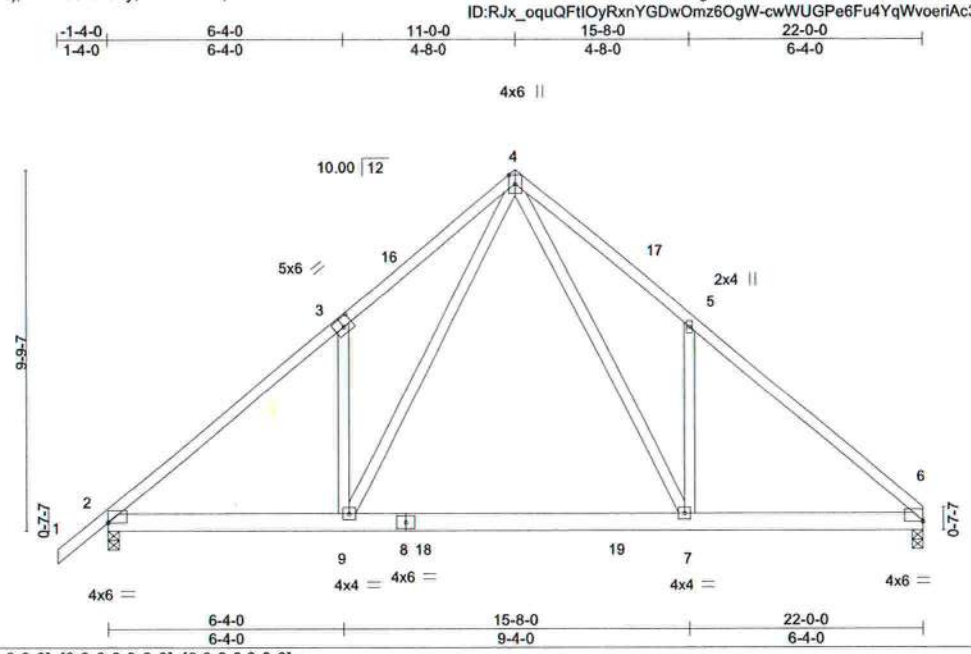

Plate Offsets (X,Y)-- [2:Edge,0-0-3], [3:0-3-0,0-3-0], [6:0-0-0,0-0-3]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.47	Vert(LL)	-0.18	7-9	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.83	Vert(CT)	-0.34	7-9	>787	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.82	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 143 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-3-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=0-3-8, 2=0-3-8
Max Horz 2=218(LC 11)
Max Uplift 6=-225(LC 13), 2=-255(LC 12)
Max Grav 6=1208(LC 20), 2=1277(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1668/326, 3-4=-1682/516, 4-5=-1695/527, 5-6=-1670/327
BOT CHORD 2-9=-269/1322, 7-9=-94/822, 6-7=-183/1229
WEBS 4-7=-397/1130, 5-7=-324/290, 4-9=-383/1111, 3-9=-318/285

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 11-0-0, Exterior(2R) 11-0-0 to 14-0-0, Interior(1) 14-0-0 to 22-0-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=225, 2=255.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-54, 4-6=-54, 9-13=-20, 7-9=-80(F=-60), 7-10=-20

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Philip J. O'Regan PE No.58126
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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917230
3287790	T01G	Common Supported Gable	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:54 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-8ky623dUUbyhCMKc48Ax4rmkOlYcRBhjxZrxNhyWnLB

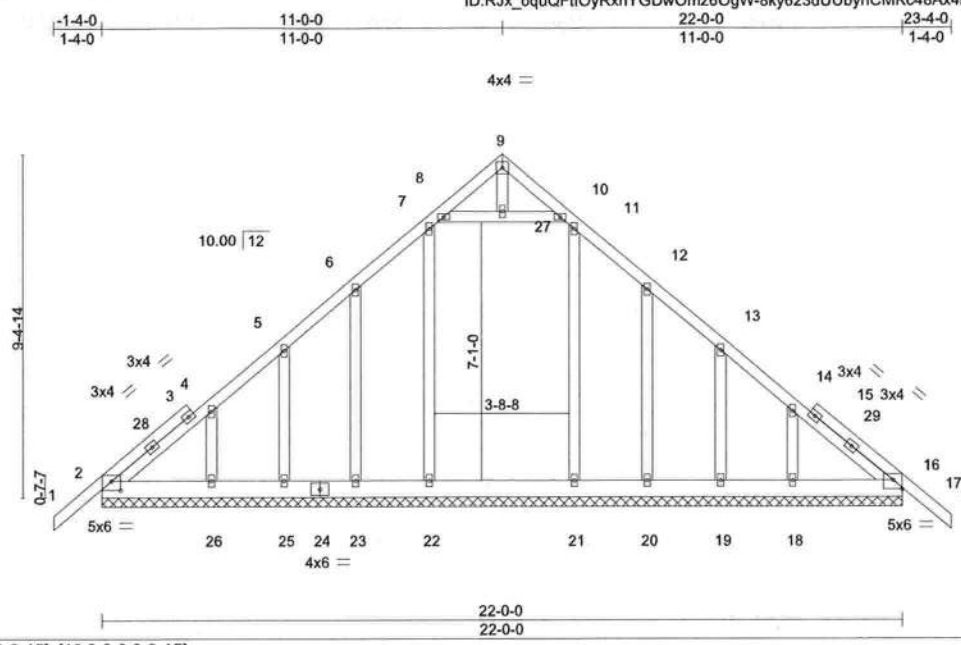

Plate Offsets (X,Y)-- [2:0-3-0,0-2-15], [16:0-3-0,0-2-15]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.10	Vert(LL)	-0.00	17	n/r	120	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.06	Vert(CT)	-0.00	17	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	16	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-S							Weight: 169 lb	FT = 20%

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

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

REACTIONS. All bearings 22-0-0.
(lb) - Max Horz 2=-218(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 16, 22, 23, 25, 26, 20, 19, 18
Max Grav All reactions 250 lb or less at joint(s) 2, 16, 23, 25, 26, 20, 19, 18 except 22=314(LC 19), 21=284(LC 20)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-4-0 to 1-8-0, Exterior(2N) 1-8-0 to 11-0-0, Corner(3R) 11-0-0 to 14-0-0, Exterior(2N) 14-0-0 to 23-4-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 16, 22, 23, 25, 26, 20, 19, 18.

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Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	T01	COMMON	7	1	T28917229
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:53 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-gYOkrjcsjHqqaClQWQfiXeDTxv?FiaSZiv6NrFyWnLC

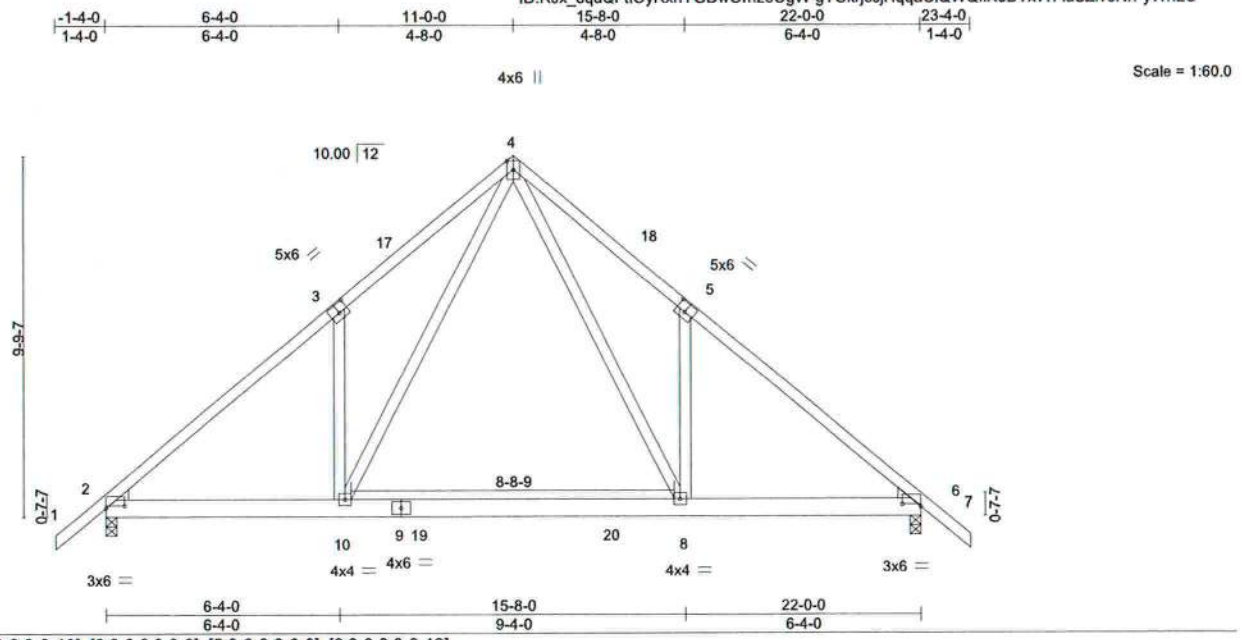

Plate Offsets (X,Y)-- [2:0-6-0,0-0-13], [3:0-3-0,0-3-0], [5:0-3-0,0-3-0], [6:0-6-0,0-0-13]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.47	Vert(LL)	-0.18	8-10	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.84	Vert(CT)	-0.34	8-10	>783	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.79	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 146 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-3-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=-226(LC 10)
Max Uplift 2=-254(LC 12), 6=-254(LC 13)
Max Grav 2=1276(LC 19), 6=1276(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1665/325, 3-4=-1681/515, 4-5=-1681/515, 5-6=-1665/325
BOT CHORD 2-10=-252/1333, 8-10=-77/833, 6-8=-166/1238
WEBS 4-8=-384/1112, 5-8=-318/285, 4-10=-384/1112, 3-10=-318/285

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 11-0-0, Exterior(2R) 11-0-0 to 14-0-0, Interior(1) 14-0-0 to 23-4-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 254 lb uplift at joint 2 and 254 lb uplift at joint 6.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-54, 4-7=-54, 10-11=-20, 8-10=-80(F=-60), 8-14=-20

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917228
3287790	PB03	PIGGYBACK	4	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:52 2022 Page 1
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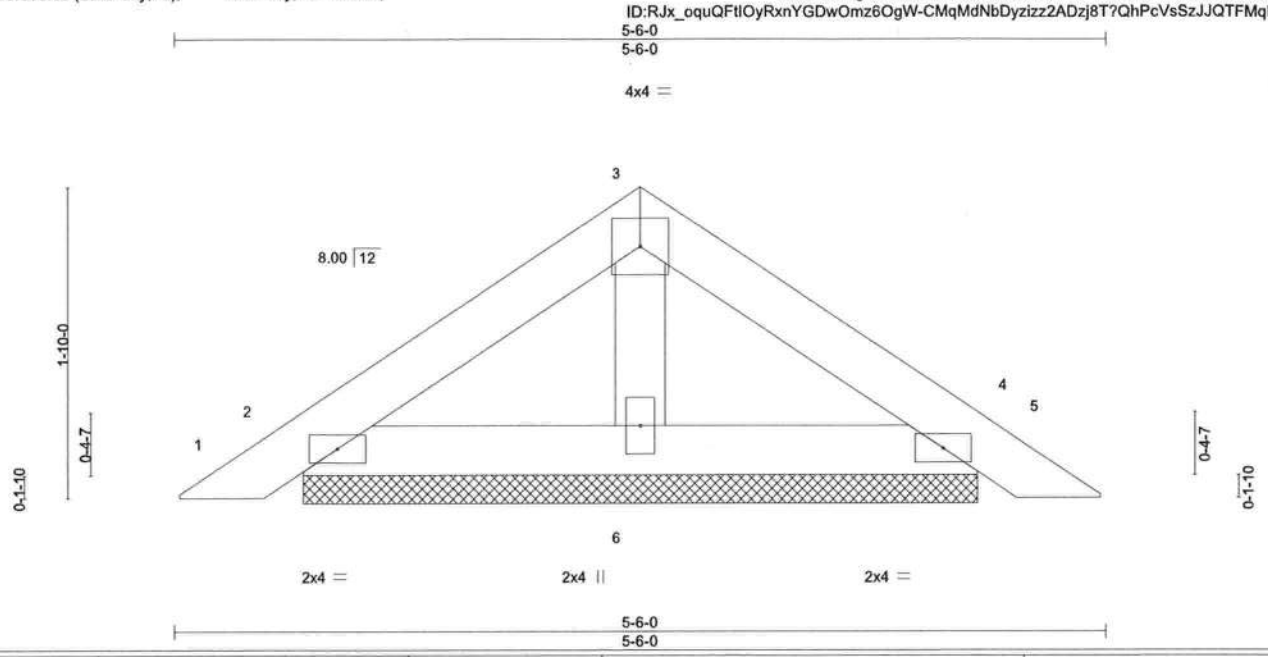

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.06	Vert(LL)	0.00	4	n/r	120	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.04	Vert(CT)	0.00	5	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-P							Weight: 17 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-6-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=3-11-12, 4=3-11-12, 6=3-11-12
Max Horz 2=36(LC 11)
Max Uplift 2=-36(LC 12), 4=-40(LC 13), 6=-8(LC 12)
Max Grav 2=108(LC 1), 4=108(LC 1), 6=131(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 2, 40 lb uplift at joint 4 and 8 lb uplift at joint 6.
8) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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Date:

October 5,2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	PB02	GABLE	10	1	T28917227
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:51 2022 Page 1
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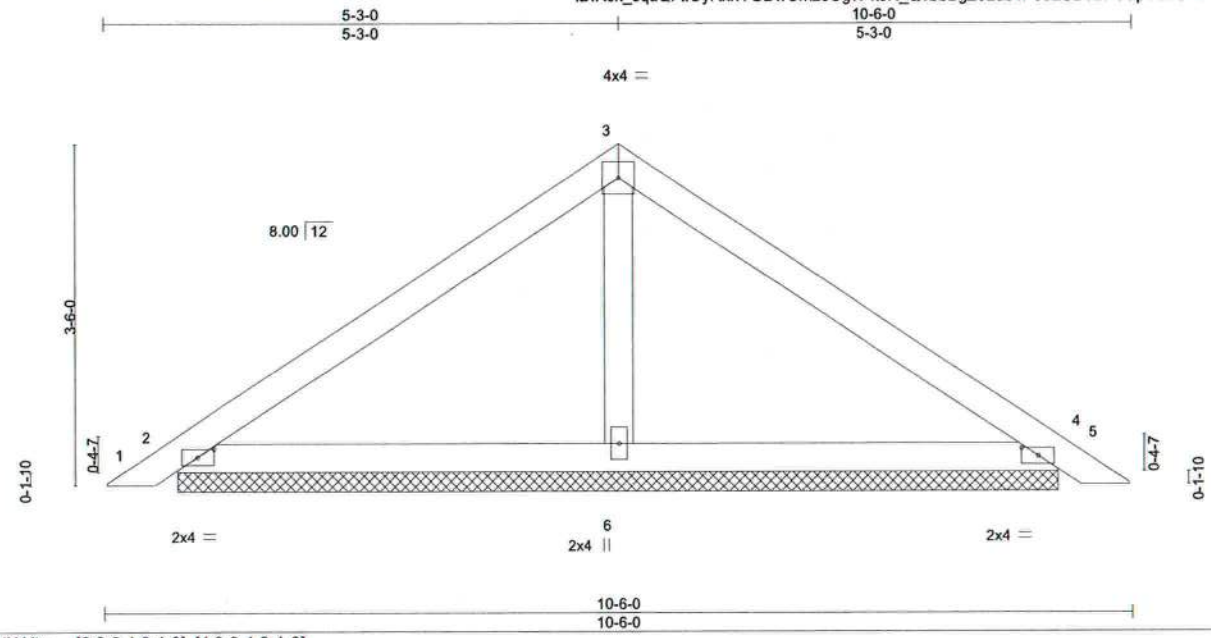

Plate Offsets (X,Y)-- [2:0-2-1,0-1-0], [4:0-2-1,0-1-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.22	Vert(LL)	0.01	5	n/r	120	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.19	Vert(CT)	0.01	5	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-S							Weight: 36 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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

REACTIONS. (size) 2=8-11-12, 4=8-11-12, 6=8-11-12
Max Horz 2=-73(LC 10)
Max Uplift 2=-53(LC 12), 4=-63(LC 13), 6=-45(LC 12)
Max Grav 2=190(LC 1), 4=190(LC 1), 6=337(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-5 to 3-3-5, Interior(1) 3-3-5 to 5-3-0, Exterior(2R) 5-3-0 to 8-3-0, Interior(1) 8-3-0 to 10-2-11 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 2, 63 lb uplift at joint 4 and 45 lb uplift at joint 6.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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Date:

October 5,2022

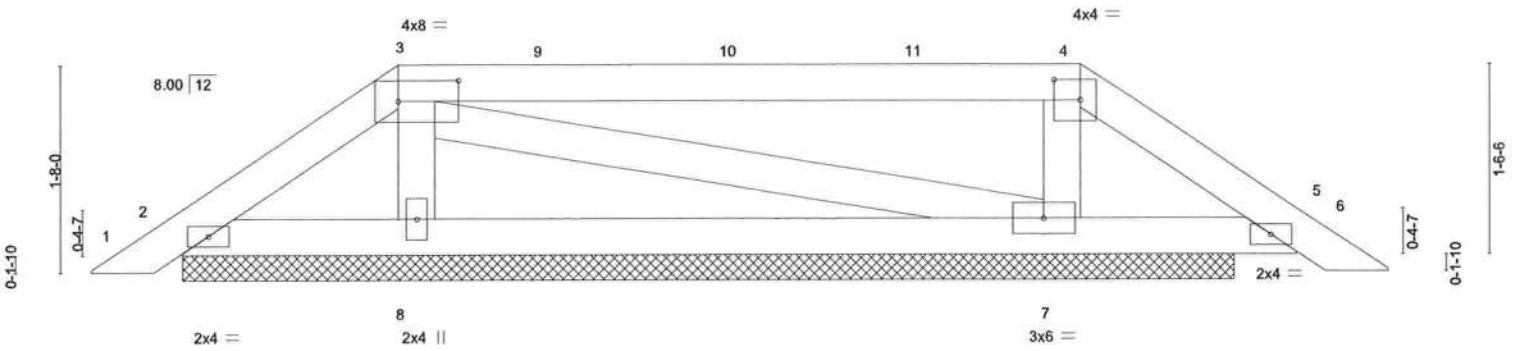
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917226
3287790	PB01	PIGGYBACK	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:50 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-GzjbCiazQMRFjl0rrl6?v?b?2h92VPI70ytjEwyWnLF

2-6-0 | 8-0-0 | 10-6-0
2-6-0 | 5-6-0 | 2-6-0

Scale = 1:17.9



10-6-0
10-6-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.32	Vert(LL)	-0.00	5	n/r	120	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.16	Vert(CT)	-0.00	5	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-S							Weight: 41 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

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

REACTIONS. (size) 2=8-5-12, 7=8-5-12, 8=8-5-12
Max Horz 2=-33(LC 10)
Max Uplift 2=-28(LC 12), 7=-69(LC 13), 8=-66(LC 9)
Max Grav 2=57(LC 23), 7=372(LC 24), 8=307(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 4-7=-266/168

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-5 to 2-7-12, Exterior(2R) 2-7-12 to 6-10-11, Interior(1) 6-10-11 to 8-0-0, Exterior(2E) 8-0-0 to 10-2-11 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 2, 69 lb uplift at joint 7 and 66 lb uplift at joint 8.
8) N/A
9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-5=-54, 6-9=-20

Concentrated Loads (lb)

Vert: 7=-135(F=-67, B=-67) 13=-1(F=-0, B=-0) 14=-74(F=-37, B=-37) 16=-224(F=-112, B=-112) 18=-10(F=-5, B=-5) 19=-62(F=-31, B=-31)

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917225
3287790	HJ10A	DIAGONAL HIP GIRDER	2	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:49 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-nn9D?MZLf2JO6bReHbbmNo3kAHiHmsHznI8AiUyWnLG

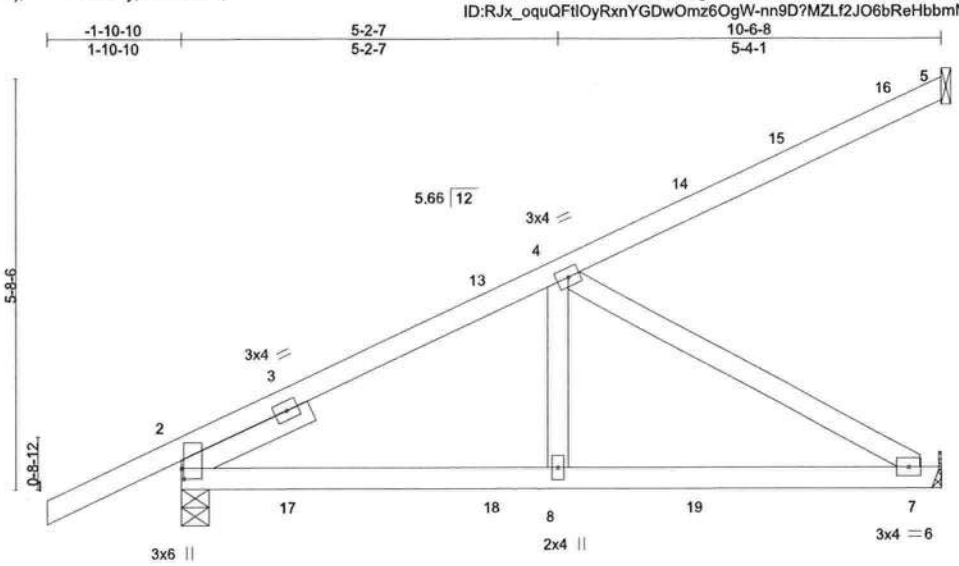

Plate Offsets (X,Y)-- [2:0-1-12,0-0-6]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.65	Vert(LL)	0.09	7-8	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.58	Vert(CT)	-0.12	7-8	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.42	Horz(CT)	-0.01	5	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 51 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 8-11-7 oc bracing.

REACTIONS. (size) 5=Mechanical, 2=0-4-9, 6=Mechanical
Max Horz 2=186(LC 8)
Max Uplift 5=-243(LC 8), 2=-253(LC 8), 6=-317(LC 8)
Max Grav 5=338(LC 1), 2=562(LC 1), 6=493(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-585/344
BOT CHORD 2-8=-399/542, 7-8=-399/542
WEBS 4-8=-106/305, 4-7=-623/459

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 243 lb uplift at joint 5, 253 lb uplift at joint 2 and 317 lb uplift at joint 6.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 56 lb down and 9 lb up at 1-6-1, 56 lb down and 9 lb up at 1-6-1, 78 lb down and 54 lb up at 4-4-0, 78 lb down and 54 lb up at 4-4-0, 105 lb down and 97 lb up at 7-1-15, 105 lb down and 97 lb up at 7-1-15, and 117 lb down and 120 lb up at 9-11-14, and 117 lb down and 120 lb up at 9-11-14 on top chord, and 33 lb down and 48 lb up at 1-6-1, 33 lb down and 48 lb up at 1-6-1, 19 lb down and 27 lb up at 4-4-0, 19 lb down and 27 lb up at 4-4-0, 41 lb down and 47 lb up at 7-1-15, 41 lb down and 47 lb up at 7-1-15, and 88 lb down and 63 lb up at 9-11-14, and 88 lb down and 63 lb up at 9-11-14 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

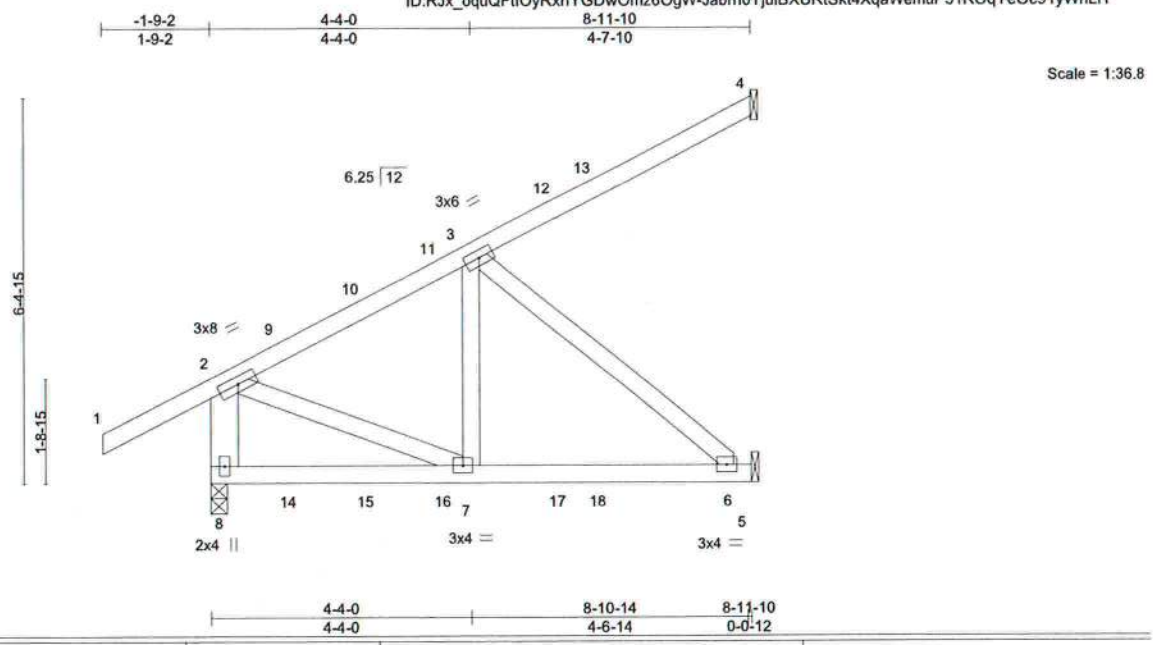
October 5,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.	T28917224
3287790	HJ10	DIAGONAL HIP GIRDER	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:48 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-Jabrn0YjulBXURtSkt4XqaWemuP51ROqYeOc91yWnLH



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.37	Vert(LL)	-0.03	6-7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.39	Vert(CT)	-0.06	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.27	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 54 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
2-8: 2x6 SP 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. (size) 8=0-3-4, 4=Mechanical, 5=Mechanical
Max Horz 8=151(LC 23)
Max Uplift 8=-187(LC 4), 4=-131(LC 10), 5=-194(LC 8)
Max Grav 8=493(LC 29), 4=164(LC 1), 5=314(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-465/189, 2-3=-444/197
BOT CHORD 6-7=-241/323
WEBS 2-7=-175/375, 3-6=-424/316

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 187 lb uplift at joint 8, 131 lb uplift at joint 4 and 194 lb uplift at joint 5.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 65 lb down and 47 lb up at 1-3-12, 85 lb down and 53 lb up at 2-7-1, 92 lb down and 91 lb up at 3-10-8, 102 lb down and 99 lb up at 5-9-7, and 109 lb down and 130 lb up at 6-5-4, and 55 lb down and 70 lb up at 8-10-14 on top chord, and 19 lb down and 8 lb up at 1-3-12, 25 lb down and 23 lb up at 2-7-1, 37 lb down and 19 lb up at 3-10-8, and 55 lb down and 43 lb up at 5-9-7, and 55 lb down and 27 lb up at 6-5-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-2=-54, 2-4=-54, 5-8=-20
Concentrated Loads (lb)
Vert: 4=-43(B) 11=-11(B) 12=-13(F) 13=-52(B) 14=1(B) 15=3(F) 16=-16(B) 17=-10(F) 18=-39(B)

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October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 6=-58(F) 13=-4(F) 14=-9(B) 15=-96(F) 16=5(F) 17=1(B) 18=-13(F) 19=-15(B)

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.	T28917223
3287790	HJ09C	Diagonal Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:47 2022 Page 1
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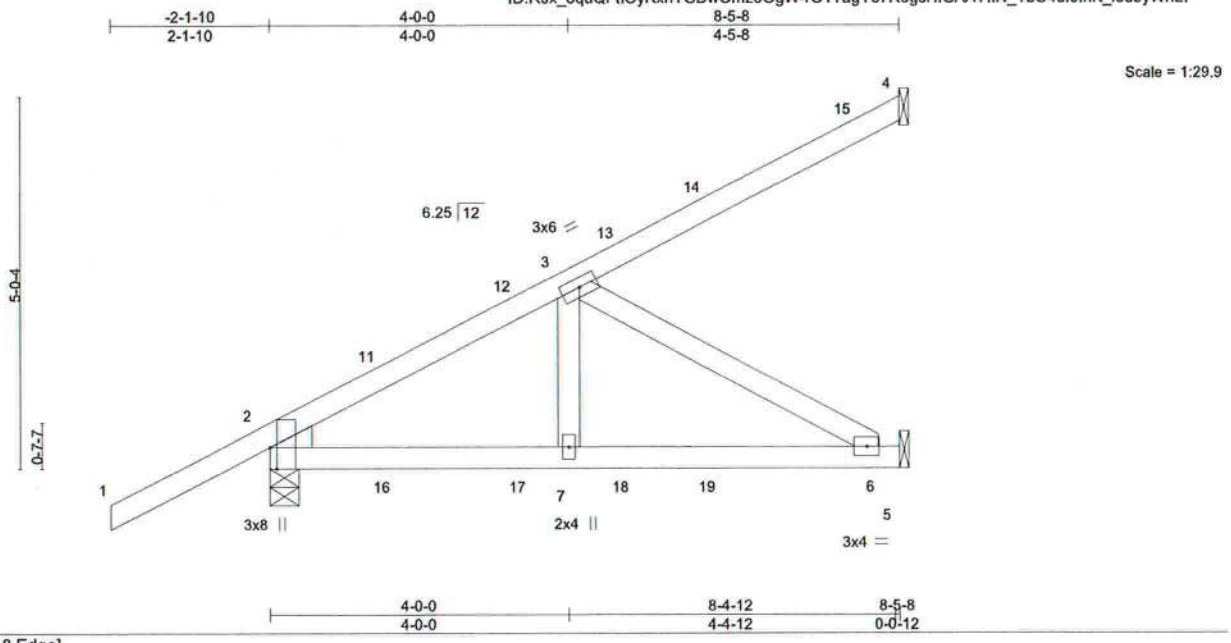

Plate Offsets (X,Y)-- [2:0-3-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.33	Vert(LL)	-0.02	6-7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.34	Vert(CT)	-0.05	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.19	Horz(CT)	-0.01	4	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 41 lb	FT = 20%

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

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

REACTIONS. (size) 4=Mechanical, 2=0-4-11, 5=Mechanical
Max Horz 2=170(LC 8)
Max Uplift 4=-136(LC 10), 2=-135(LC 8), 5=-113(LC 8)
Max Grav 4=188(LC 1), 2=457(LC 1), 5=300(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-490/132
BOT CHORD 2-7=-200/366, 6-7=-200/366
WEBS 3-6=-422/230

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 136 lb uplift at joint 4, 135 lb uplift at joint 2 and 113 lb uplift at joint 5.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 69 lb down and 23 lb up at 1-6-9, 65 lb down and 46 lb up at 3-4-6, 97 lb down and 83 lb up at 4-8-15, and 84 lb down and 89 lb up at 5-11-2, and 111 lb down and 120 lb up at 7-11-6 on top chord, and 8 lb down and 5 lb up at 1-6-9, 18 lb down and 7 lb up at 3-4-6, 35 lb down and 12 lb up at 4-8-15, and 36 lb down and 18 lb up at 5-11-2, and 77 lb down and 23 lb up at 7-11-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-54, 5-8=-20

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 4=-89(B) 13=-13(F) 14=-10(B) 15=2(F) 16=1(B) 17=-20(F) 18=-16(B)

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.	T28917222
3287790	HJ09B	Diagonal Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:46 2022 Page 1
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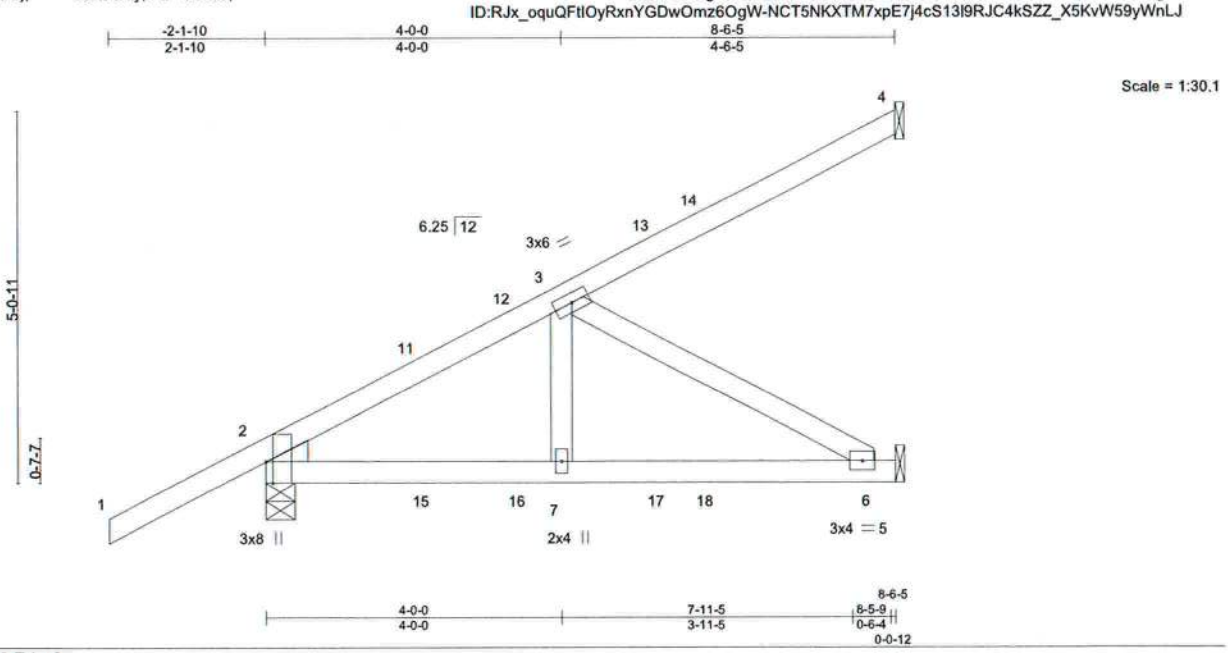

Plate Offsets (X,Y)-- [2:0-3-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.31	Vert(LL)	0.03	6-7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.33	Vert(CT)	-0.05	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.20	Horz(CT)	-0.01	4	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 42 lb	FT = 20%

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

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

REACTIONS. (size) 4=Mechanical, 2=0-4-11, 5=Mechanical
Max Horz 2=171(LC 8)
Max Uplift 4=-168(LC 10), 2=-134(LC 8), 5=-104(LC 8)
Max Grav 4=198(LC 1), 2=461(LC 1), 5=246(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-486/128
BOT CHORD 2-7=-199/366, 6-7=-199/366
WEBS 3-6=-421/228

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 168 lb uplift at joint 4, 134 lb uplift at joint 2 and 104 lb uplift at joint 5.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 72 lb down and 36 lb up at 2-1-12, 66 lb down and 47 lb up at 3-5-3, 101 lb down and 93 lb up at 5-4-2, and 85 lb down and 90 lb up at 5-11-15, and 101 lb down and 120 lb up at 8-5-9 on top chord, and 13 lb down and 2 lb up at 2-1-12, 18 lb down and 7 lb up at 3-5-3, and 40 lb down and 15 lb up at 5-4-2, and 37 lb down and 18 lb up at 5-11-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-54, 5-8=-20

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Philip J. O'Regan PE No.58126
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Date:

October 5,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917221
3287790	HJ03	Diagonal Hip Girder	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:45 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-v?vi9_Wqbqpzdz8t2lWqCyu8SgUdq9qOsgAyZjyWnLK

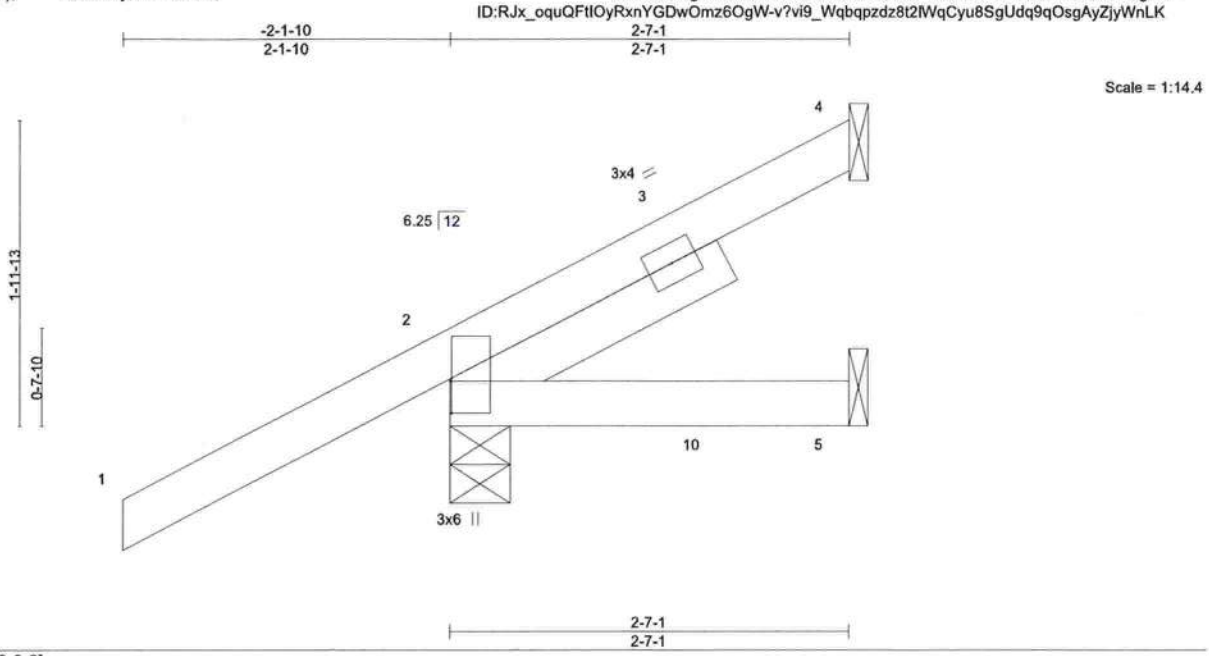

Plate Offsets (X,Y)-- [2:0-2-8,0-0-2]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.31	Vert(LL)	0.00	8	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.05	Vert(CT)	-0.00	8	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 15 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.3 1-11-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-7-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-4-11, 5=Mechanical
Max Horz 2=78(LC 8)
Max Uplift 4=-27(LC 8), 2=-77(LC 8), 5=-6(LC 15)
Max Grav 4=30(LC 19), 2=252(LC 19), 5=37(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 4, 77 lb uplift at joint 2 and 6 lb uplift at joint 5.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 50 lb down and 44 lb up at 1-8-2 on top chord, and 11 lb down and 31 lb up at 1-8-2 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-54, 5-6=-20
Concentrated Loads (lb)
Vert: 3=44(F)

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Date:

October 5,2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917220
3287790	HJ02	Diagonal Hip Girder	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:25:44 2022 Page 1
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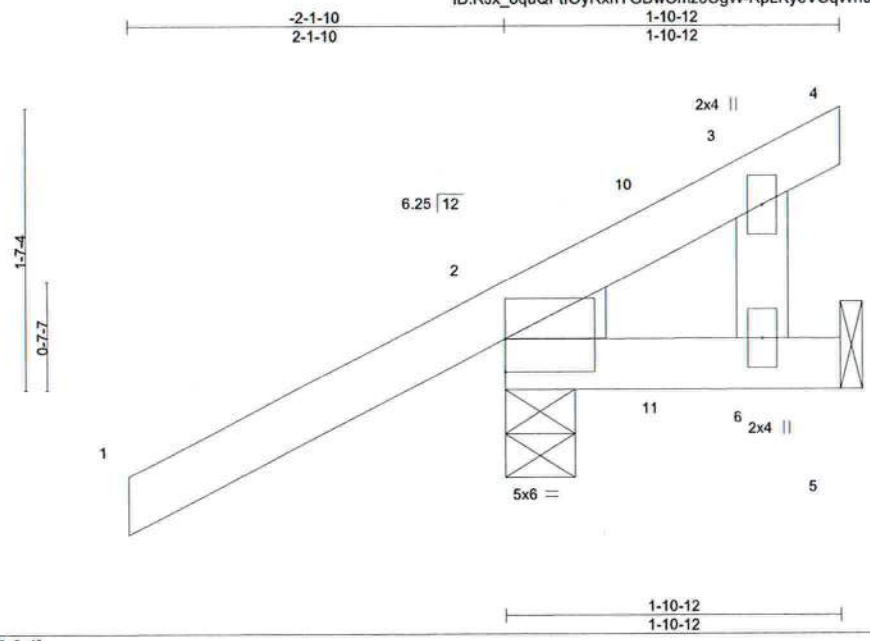

Plate Offsets (X,Y)-- [2:0-0-0,0-2-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.31	Vert(LL)	0.00	9	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.09	Vert(CT)	0.00	9	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.00	2	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MP							Weight: 12 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-10-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 2=0-4-11, 5=Mechanical
Max Horz 2=66(LC 8)
Max Uplift 2=-88(LC 8), 5=-21(LC 1)
Max Grav 2=243(LC 19), 5=48(LC 30)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 88 lb uplift at joint 2 and 21 lb uplift at joint 5.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 51 lb down and 52 lb up at 0-11-2 on top chord, and 15 lb down and 36 lb up at 0-11-2 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-3=-54, 3-4=-54, 5-7=-20
Concentrated Loads (lb)
Vert: 10=52(B)

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917238
3287790	T09	Half Hip	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:03 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-NT?Wx8k7MM4PnkWL6Xr2xle92xVf2A21?TXvBgyWnL2

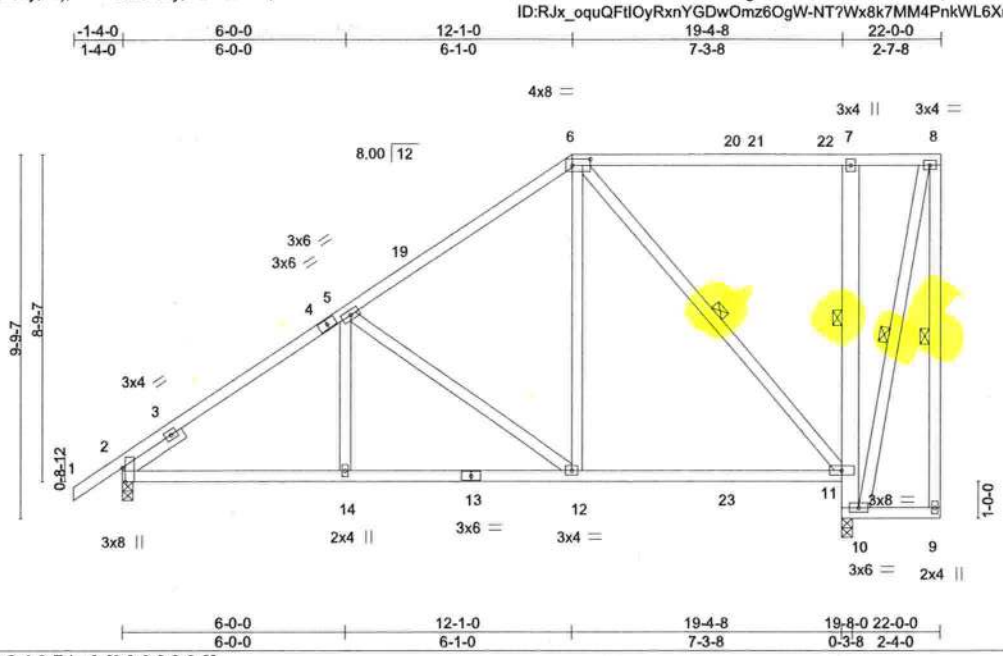

Plate Offsets (X,Y)-- [2:0-4-9,Edge], [6:0-6-0,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.56	Vert(LL)	-0.13	11-12	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.58	Vert(CT)	-0.21	11-12	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.05	10	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 169 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
7-10: 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-10-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
1 Row at midpt 7-11
WEBS 1 Row at midpt 8-9, 6-11, 8-10

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=305(LC 12)
Max Uplift 2=-161(LC 12), 10=-233(LC 12)
Max Grav 2=894(LC 19), 10=987(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-927/170, 5-6=-645/133
BOT CHORD 2-14=-342/871, 12-14=-342/871, 11-12=-164/489, 10-11=-900/254, 7-11=-355/187
WEBS 5-12=-481/220, 6-12=-80/593, 6-11=-696/227

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 12-1-0, Exterior(2R) 12-1-0 to 16-3-15, Interior(1) 16-3-15 to 21-10-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=161, 10=233.

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Philip J. O'Regan PE No.58126
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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.	T28917239
3287790	T10	Hip	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:04 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-rfZu8Ull7fCGPu5XgEMHUyBKVKr9neqBE7GSk6yWnL1

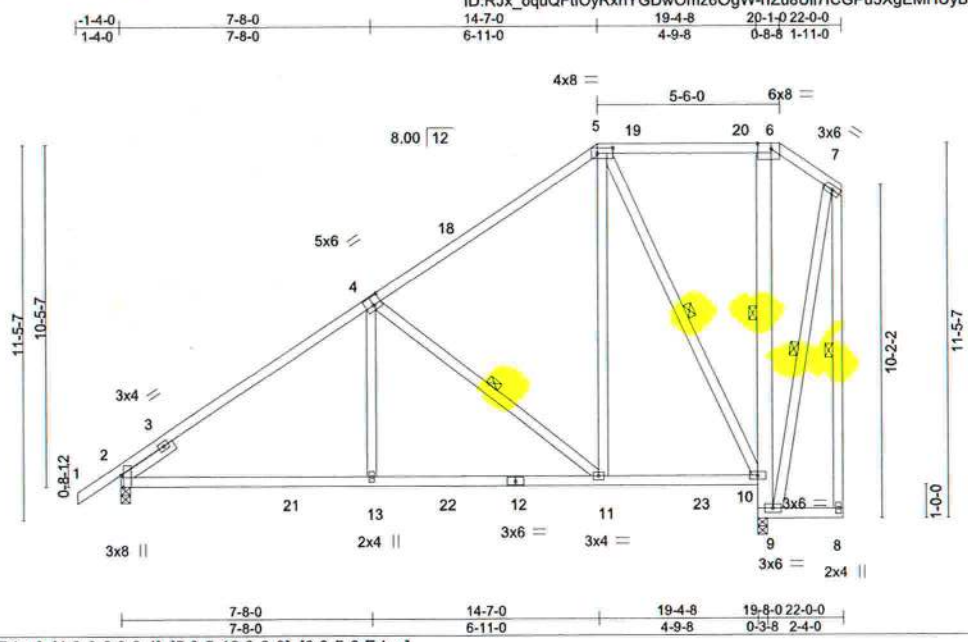

Plate Offsets (X,Y)-- [2:0-4-9,Edge], [4:0-3-0,0-3-4], [5:0-5-12,0-2-0], [6:0-5-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.51	Vert(LL)	0.08	13-16	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.56	Vert(CT)	-0.14	13-16	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.04	9	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 182 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
6-9: 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-7-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
1 Row at midpt 6-10
WEBS 1 Row at midpt 4-11, 5-10, 7-8, 7-9

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=338(LC 12)
Max Uplift 2=-138(LC 12), 9=-220(LC 12)
Max Grav 2=940(LC 19), 9=1007(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-952/122, 4-5=-487/80
BOT CHORD 2-13=-315/894, 11-13=-315/894, 10-11=-100/353, 9-10=-886/211
WEBS 4-13=0/387, 4-11=-698/275, 5-11=-123/683, 5-10=-786/223

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 14-7-0, Exterior(2R) 14-7-0 to 18-9-15, Interior(1) 18-9-15 to 19-10-0, Exterior(2E) 19-10-0 to 21-10-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=138, 9=220.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

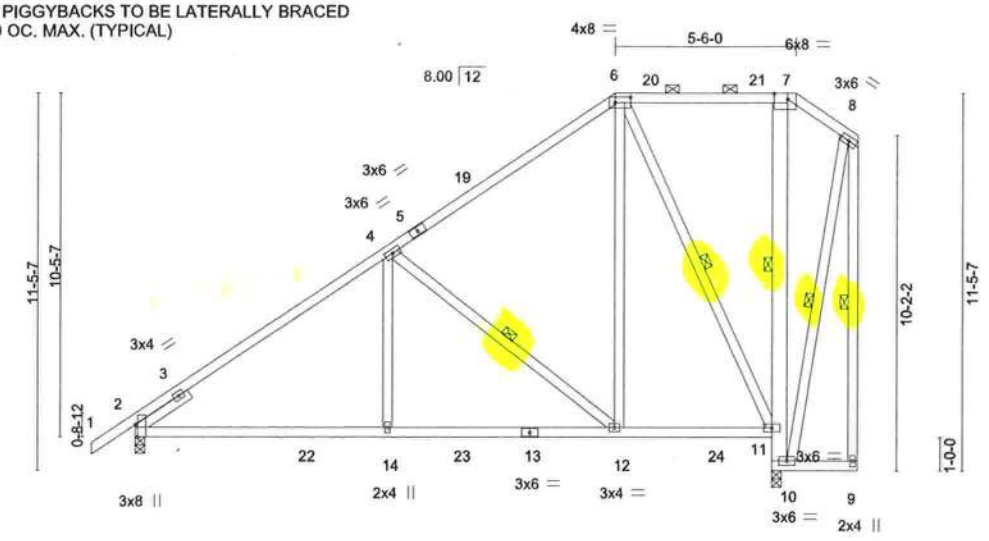
Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917240
3287790	T11	Piggyback Base	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:05 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-Js7GMqlNuzK702gjDytW0AjVEkAOW53KTn00GYyWnL0

-1-4-0 | 7-8-0 | 14-7-0 | 19-4-8 | 20-1-0 22-0-0
1-4-0 | 7-8-0 | 6-11-0 | 4-9-8 | 0-8-8 1-11-0

TOP CHORD UNDER PIGGYBACKS TO BE LATERALLY BRACED BY PURLINS AT 2-0-0 OC. MAX. (TYPICAL)

Scale = 1:67.6



7-8-0 | 14-7-0 | 19-4-8 | 19-8-0 22-0-0
7-8-0 | 6-11-0 | 4-9-8 | 0-3-8 2-4-0

Plate Offsets (X,Y)-- [2:0-4-9,Edge], [6:0-5-12,0-2-0], [7:0-5-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.51	Vert(LL)	0.08	14-17	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.56	Vert(CT)	-0.14	14-17	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.04	10	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 182 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
7-10: 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-7-7 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
1 Row at midpt 7-11
WEBS 1 Row at midpt 4-12, 6-11, 8-9, 8-10

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=338(LC 12)
Max Uplift 2=-138(LC 12), 10=-220(LC 12)
Max Grav 2=940(LC 19), 10=1007(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-952/122, 4-6=-487/80
BOT CHORD 2-14=-314/893, 12-14=-314/893, 11-12=-100/353, 10-11=-886/211
WEBS 4-14=0/387, 4-12=-698/275, 6-12=-124/684, 6-11=-786/223

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 14-7-0, Exterior(2R) 14-7-0 to 18-9-15, Interior(1) 18-9-15 to 19-10-0, Exterior(2E) 19-10-0 to 21-10-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=138, 10=220.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.	T28917241
3287790	T12	Piggyback Base	3	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:06 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-o2hfZAm0fHS_eCFwnfOlZNGgo8WYFYkUhRlZo?yWnL?

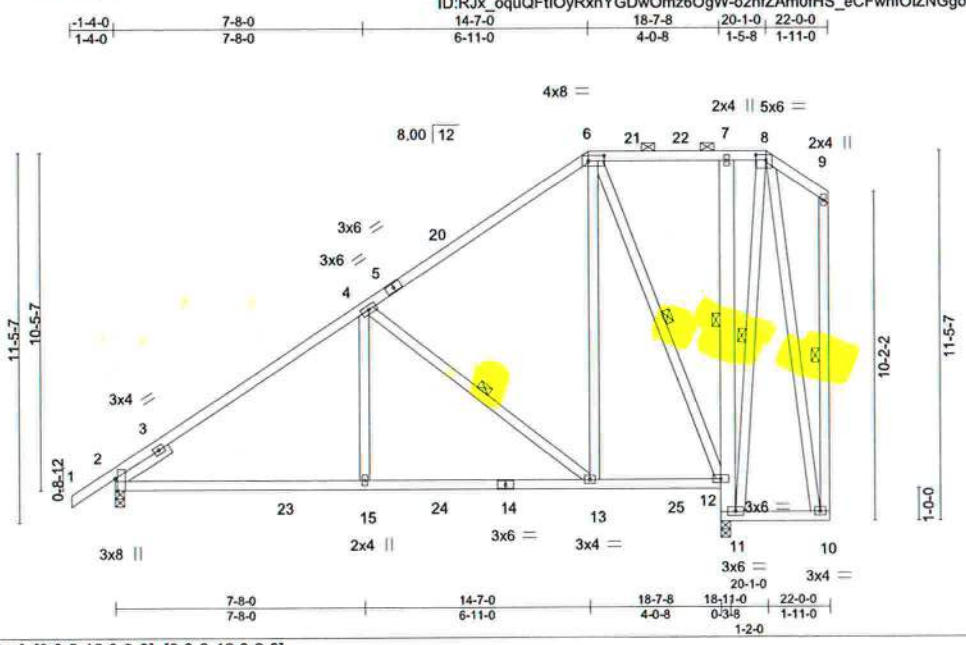

Plate Offsets (X,Y)-- [2:0-4-9,Edge], [6:0-5-12,0-2-0], [8:0-3-12,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.53	Vert(LL)	0.08	15-18	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.56	Vert(CT)	-0.14	15-18	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.04	11	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 200 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
7-11: 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
1 Row at midpt 7-12
WEBS 1 Row at midpt 4-13, 6-12, 8-11, 9-10

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=338(LC 12)
Max Uplift 2=-136(LC 12), 11=-263(LC 12)
Max Grav 2=900(LC 19), 11=1040(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-841/118, 4-6=-419/77
BOT CHORD 2-15=-312/841, 13-15=-312/841, 12-13=-97/294, 11-12=-834/247
WEBS 4-15=0/392, 4-13=-705/274, 6-13=-124/670, 6-12=-782/245

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 14-7-0, Exterior(2R) 14-7-0 to 18-10-4, Interior(1) 18-10-4 to 20-1-0, Exterior(2E) 20-1-0 to 21-10-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=136, 11=263.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

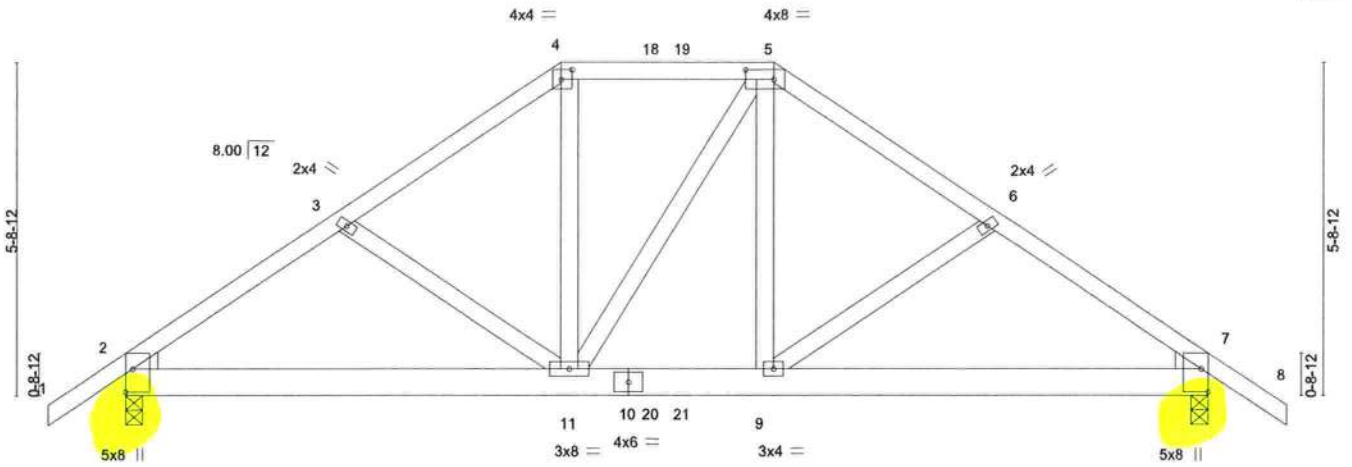
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917242
3287790	T13	HIP GIRDER	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:07 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-GEE1nWneQabrGMp6LNv_5bpseYrU_05dw5V7KRyWnL_

-1-4-0 | 3-9-11 | 7-6-0 | 11-2-0 | 14-10-5 | 18-8-0 | 20-0-0
1-4-0 | 3-9-11 | 3-8-5 | 3-8-0 | 3-8-5 | 3-9-11 | 1-4-0

Scale = 1:38.3



7-6-0 | 11-2-0 | 18-8-0
7-6-0 | 3-8-0 | 7-6-0

Plate Offsets (X,Y)-- [2:Edge,0-1-7], [4:0-2-4,0-2-0], [5:0-5-12,0-2-0], [7:Edge,0-1-7]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.45	Vert(LL)	0.09	9-11	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.58	Vert(CT)	-0.12	9-11	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.33	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 119 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-6-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 7-5-14 oc bracing.

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=-130(LC 6)
Max Uplift 2=-706(LC 8), 7=-742(LC 9)
Max Grav 2=1519(LC 1), 7=1570(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2160/1089, 3-4=-2015/1073, 4-5=-1664/943, 5-6=-2094/1131, 6-7=-2240/1145
BOT CHORD 2-11=-917/1731, 9-11=-924/1725, 7-9=-865/1797
WEBS 4-11=-515/871, 5-9=-436/779

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=706, 7=742.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 67 lb down and 34 lb up at 9-0-12, and 67 lb down and 34 lb up at 9-7-4, and 290 lb down and 254 lb up at 11-2-0 on top chord, and 455 lb down and 345 lb up at 7-6-0, 180 lb down and 115 lb up at 9-0-12, and 180 lb down and 115 lb up at 9-7-4, and 455 lb down and 345 lb up at 11-2-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-54, 4-5=-54, 5-8=-54, 12-15=-20

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

Concentrated Loads (lb)

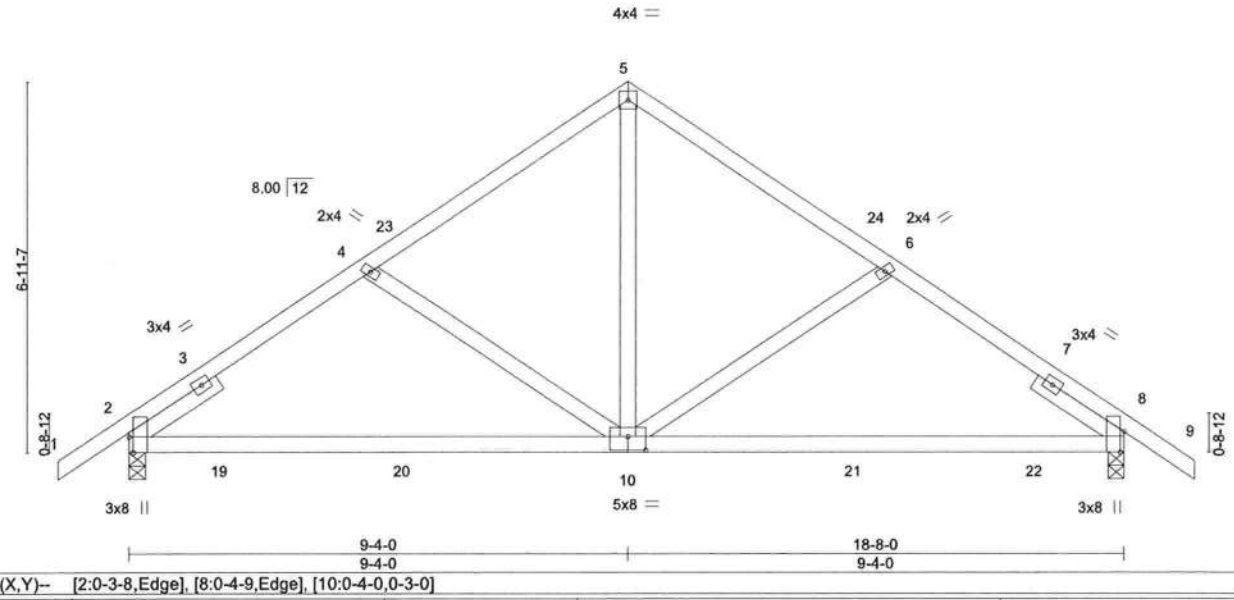
Vert: 5=-262(F) 11=-455(F) 9=-455(F) 18=-16(F) 19=-16(F) 20=-180(F) 21=-180(F)

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917243
3287790	T14	QUEENPOST	2	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:08 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-kRoP_roGBujitWOIv4RDeoL5ryAyjScm9lEgstyWnKz

-1-4-0	4-6-2	9-4-0	14-1-14	18-8-0	20-0-0
1-4-0	4-6-2	4-9-14	4-9-14	4-6-2	1-4-0

Scale = 1:41.7



9-4-0	18-8-0
9-4-0	9-4-0

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [8:0-4-9,Edge], [10:0-4-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.23	Vert(LL)	0.17	10-17	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.70	Vert(CT)	-0.20	10-13	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 99 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8

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

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=-157(LC 10)
Max Uplift 2=-164(LC 12), 8=-164(LC 13)
Max Grav 2=763(LC 1), 8=763(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-782/702, 4-5=-688/572, 5-6=-688/572, 6-8=-782/702
BOT CHORD 2-10=-456/688, 8-10=-456/688
WEBS 5-10=-529/478

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 9-4-0, Exterior(2R) 9-4-0 to 13-6-15, Interior(1) 13-6-15 to 20-0-0 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=164, 8=164.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.	T28917244
3287790	T15	COMMON	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:09 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-CdMnCBpuyCrZVfzUSoySB0uGNLW7SuNwNP_DOJyWnKy

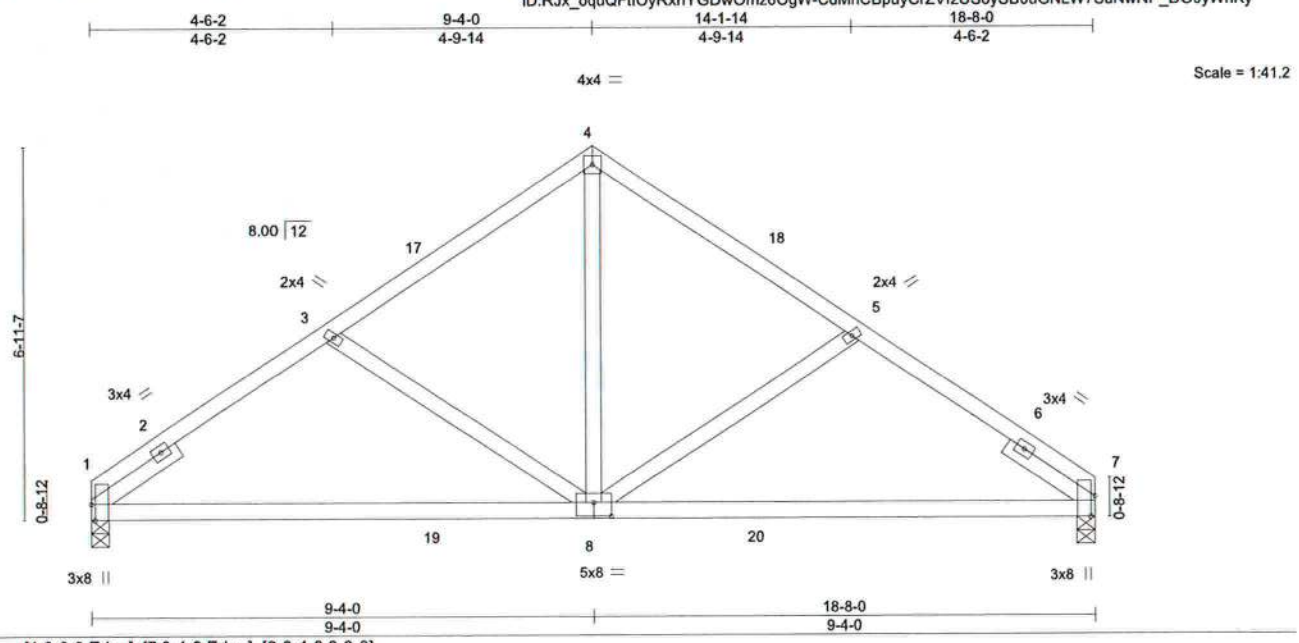

Plate Offsets (X,Y)-- [1:0-3-8,Edge], [7:0-4-9,Edge], [8:0-4-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.25	Vert(LL)	0.17	8-11	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.70	Vert(CT)	-0.20	8-11	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 94 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 7-6-15 oc bracing.

REACTIONS. (size) 1=0-4-0, 7=0-4-0
Max Horz 1=137(LC 9)
Max Uplift 1=-135(LC 12), 7=-135(LC 13)
Max Grav 1=691(LC 1), 7=691(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-796/747, 3-4=-698/606, 4-5=-698/606, 5-7=-796/747
BOT CHORD 1-8=-514/703, 7-8=-503/703
WEBS 4-8=-566/481

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 9-4-0, Exterior(2R) 9-4-0 to 12-4-0, Interior(1) 12-4-0 to 18-8-0 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=135, 7=135.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917245
3287790	T16	COMMON	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:10 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-gpw9PXpWjVzQ7pYh0VThjDQR7IsMBLd3c3jnwmyWnKx

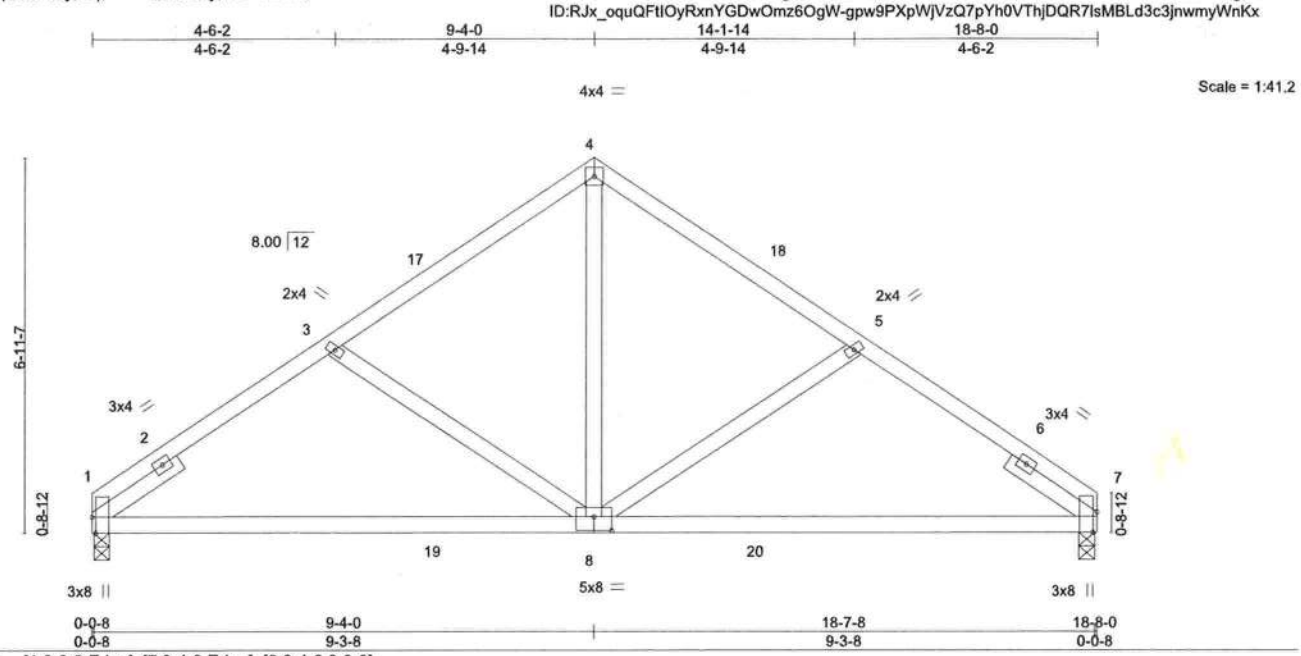

Plate Offsets (X,Y)-- [1:0-3-8,Edge], [7:0-4-9,Edge], [8:0-4-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.25	Vert(LL)	0.17	8-11	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.70	Vert(CT)	-0.20	8-11	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 94 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 7-6-15 oc bracing.

REACTIONS. (size) 1=0-3-8, 7=0-3-8
Max Horz 1=137(LC 9)
Max Uplift 1=-135(LC 12), 7=-135(LC 13)
Max Grav 1=691(LC 1), 7=691(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-796/747, 3-4=-698/606, 4-5=-698/606, 5-7=-796/747
BOT CHORD 1-8=-514/703, 7-8=-503/703
WEBS 4-8=-566/481

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 9-4-0, Exterior(2R) 9-4-0 to 12-4-0, Interior(1) 12-4-0 to 18-8-0 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=135, 7=135.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

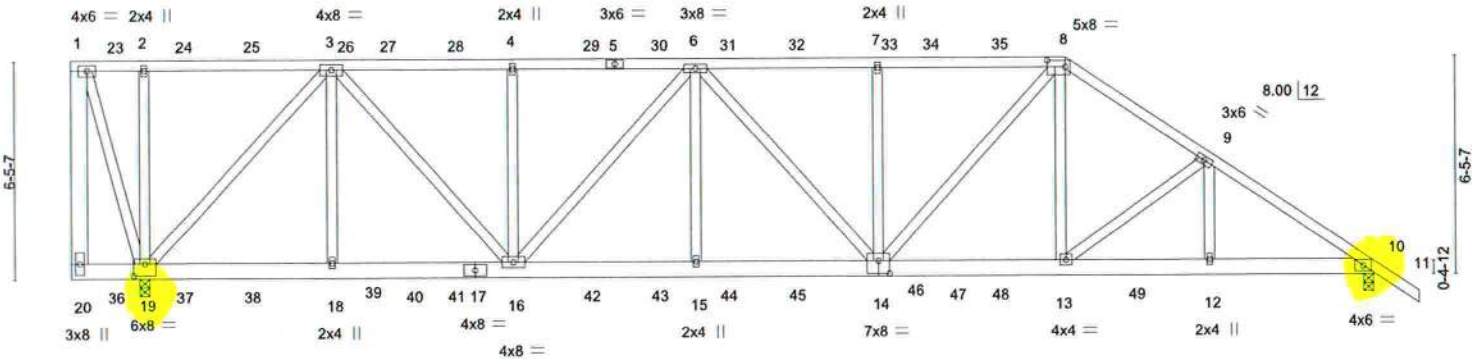
Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	T17	Roof Special Girder	1	2	T28917246

Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:15 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-1nj2SFtfX2biDaRep23sQH8GlmbxsVbomKRYbzyWnKs

2-1-12	7-7-12	13-0-0	18-4-4	23-8-8	29-2-8	33-5-5	38-3-8	39-7-8
2-1-12	5-6-0	5-4-4	5-4-4	5-4-4	5-6-0	4-2-13	4-10-3	1-4-0

Scale = 1:65.3



2-0-0	2-1-12	7-7-12	13-0-0	18-4-4	23-8-8	29-2-8	33-5-5	38-3-8
2-0-0	1-1-12	5-6-0	5-4-4	5-4-4	5-4-4	5-6-0	4-2-13	4-10-3

Plate Offsets (X,Y)-- [8:0-6-4,0-2-4], [14:0-4-0,0-4-8], [19:0-4-0,0-4-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.28	Vert(LL)	0.14	14-15	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.55	Vert(CT)	-0.22	14-15	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.94	Horz(CT)	0.06	10	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 587 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except*
1-20: 2x6 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-10-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 19-20.

REACTIONS. (size) 19=0-3-8, 10=0-3-8
Max Horz 19=-236(LC 9)
Max Uplift 19=-2056(LC 4), 10=-1165(LC 9)
Max Grav 19=4379(LC 1), 10=2725(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-20=-378/914, 1-2=-119/290, 2-3=-119/290, 3-4=-3486/1729, 4-6=-3486/1729, 6-7=-4167/2034, 7-8=-4167/2034, 8-9=-4072/1904, 9-10=-4553/1999
BOT CHORD 18-19=-985/2046, 16-18=-985/2046, 15-16=-1988/4207, 14-15=-1988/4207, 13-14=-1481/3352, 12-13=-1603/3735, 10-12=-1603/3735
WEBS 1-19=-916/379, 2-19=-345/218, 3-19=-3411/1673, 3-18=-188/557, 3-16=-1089/2251, 4-16=-344/227, 6-16=-1090/517, 6-15=-203/568, 7-14=-372/251, 8-14=-677/1223, 8-13=-490/1046, 9-13=-507/268, 9-12=-113/346

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) 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.
3) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
4) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 19=2056, 10=1165.

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MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 72 lb down and 61 lb up at 1-2-12, 72 lb down and 61 lb up at 3-2-12, 72 lb down and 61 lb up at 5-2-12, 72 lb down and 61 lb up at 7-2-12, 72 lb down and 61 lb up at 9-2-12, 72 lb down and 61 lb up at 11-2-12, 72 lb down and 61 lb up at 13-2-12, 72 lb down and 61 lb up at 15-2-12, 72 lb down and 61 lb up at 17-2-12, 72 lb down and 61 lb up at 19-2-12, 72 lb down and 61 lb up at 21-2-12, 72 lb down and 61 lb up at 23-2-12, 72 lb down and 61 lb up at 25-2-12, and 72 lb down and 61 lb up at 27-2-12, and 65 lb down and 65 lb up at 29-2-8 on top chord, and 1055 lb down and 432 lb up at 0-2-12, 158 lb down and 101 lb up at 1-2-12, 158 lb down and 101 lb up at 3-2-12, 158 lb down and 101 lb up at 5-2-12, 158 lb down and 101 lb up at 7-2-12, 158 lb down and 101 lb up at 9-2-12, 158 lb down and 101 lb up at 11-2-12, 158 lb down and 101 lb up at 13-2-12, 158 lb down and 101 lb up at 15-2-12, 158 lb down and 101 lb up at 17-2-12, 158 lb down and 101 lb up at 19-2-12, 158 lb down and 101 lb up at 21-2-12, 158 lb down and 101 lb up at 23-2-12, 158 lb down and 101 lb up at 25-2-12, 158 lb down and 101 lb up at 27-2-12, and 158 lb down and 101 lb up at 29-2-12, and 524 lb down and 308 lb up at 31-2-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

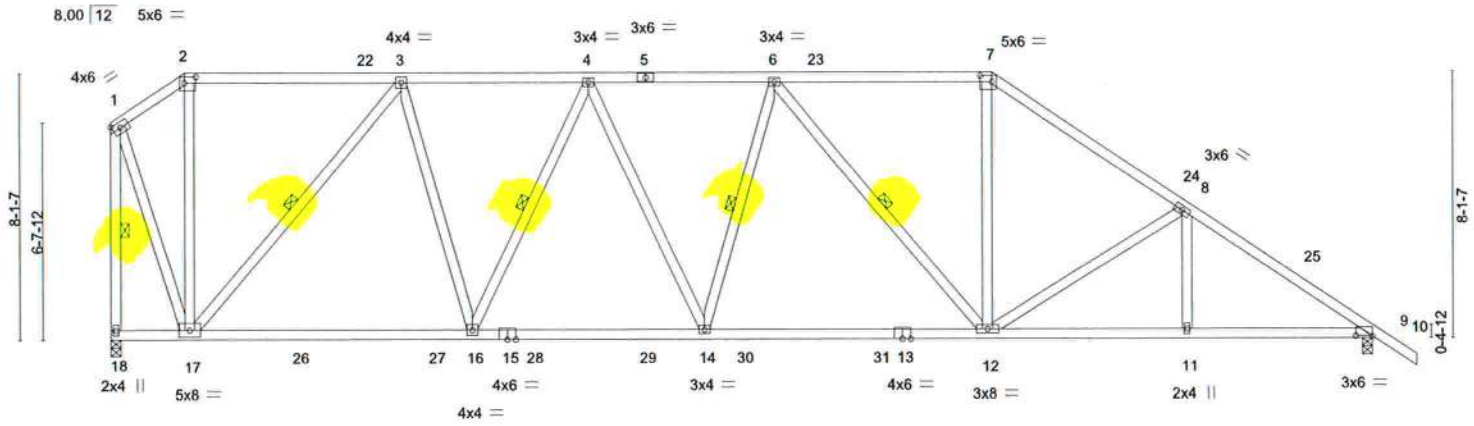
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-8=-54, 8-11=-54, 10-20=-20
   Concentrated Loads (lb)
   Vert: 20=-1055(F) 8=-22(F) 16=-154(F) 4=-22(F) 13=-154(F) 23=-22(F) 24=-22(F) 25=-22(F) 26=-22(F) 27=-22(F) 28=-22(F) 29=-22(F) 30=-22(F) 31=-22(F) 32=-22(F) 33=-22(F) 34=-22(F) 35=-22(F) 36=-154(F) 37=-154(F) 38=-154(F) 39=-154(F) 40=-154(F) 41=-154(F) 42=-154(F) 43=-154(F) 44=-154(F) 45=-154(F) 46=-154(F) 47=-154(F) 48=-154(F) 49=-524(F)

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	T18	Hip	1	1	T28917247
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055. 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:16 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-VzHRgbuHlLjZrk0rNma5zUgPdAr_b_0y__A58QyWnKr

2-2-8	8-9-13	14-5-8	20-1-4	26-8-8	32-7-14	38-3-8	39-7-8
2-2-8	6-7-5	5-7-12	5-7-12	6-7-5	5-11-6	5-7-10	1-4-0

Scale = 1:67.4



2-2-8	10-11-6	17-11-10	26-8-8	32-7-14	38-3-8
2-2-8	8-8-14	7-0-4	8-8-14	5-11-6	5-7-10

Plate Offsets (X,Y)-- [2:0-4-4,0-2-4], [7:0-4-4,0-2-4], [9:0-6-0,0-0-3]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.44	Vert(LL)	-0.28	12-14	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.94	Vert(CT)	-0.47	12-14	>965	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.10	9	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 255 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-6-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 3-17, 4-16, 6-14, 6-12, 1-18

REACTIONS. (size) 18=0-3-8, 9=0-3-8
Max Horz 18=-266(LC 13)
Max Uplift 18=-298(LC 8), 9=-348(LC 13)
Max Grav 18=1616(LC 2), 9=1633(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-570/106, 2-3=-466/115, 3-4=-1642/348, 4-6=-1997/427, 6-7=-1696/437, 7-8=-2100/462, 8-9=-2487/506, 1-18=-1676/287
BOT CHORD 17-18=-116/265, 16-17=-294/1412, 14-16=-345/1869, 12-14=-329/1983, 11-12=-322/2021, 9-11=-322/2021
WEBS 3-17=-1488/367, 3-16=-147/879, 4-16=-557/206, 4-14=-103/330, 6-12=-524/227, 7-12=-103/869, 8-12=-495/213, 1-17=-272/1422

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 2-2-8, Exterior(2R) 2-2-8 to 7-7-8, Interior(1) 7-7-8 to 26-8-8, Exterior(2R) 26-8-8 to 32-1-8, Interior(1) 32-1-8 to 39-7-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 18=298, 9=348.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

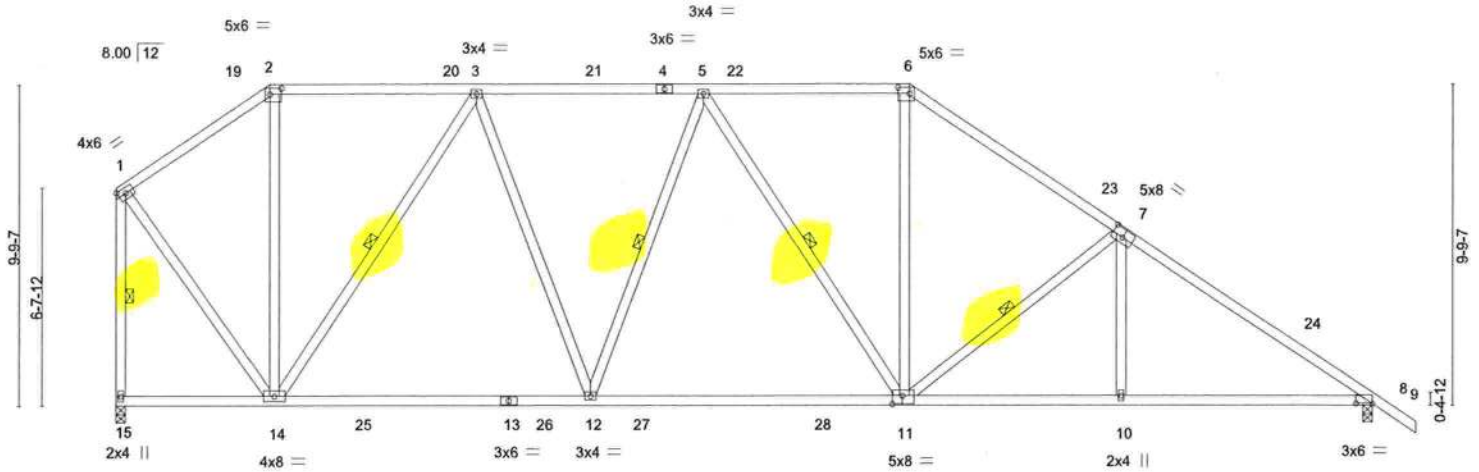
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917248
3287790	T19	Hip	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:17 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-z9rptwvv3frQTua1wT5KViDXAaCrKSC5DewfgsyWnKq

4-8-8	11-0-0	17-11-0	24-2-8	30-8-0	38-3-8	39-7-8
4-8-8	6-3-8	6-11-0	6-3-8	6-5-8	7-7-8	1-4-0

Scale = 1:67.8



4-8-8	14-5-8	24-2-8	30-8-0	38-3-8
4-8-8	9-9-0	9-9-0	6-5-8	7-7-8

Plate Offsets (X,Y)-- [2:0-4-4,0-2-4], [6:0-4-4,0-2-4], [7:0-4-0,0-3-0], [8:0-6-0,0-0-3], [11:0-3-12,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.58	Vert(LL)	-0.25	11-12	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.84	Vert(CT)	-0.42	11-12	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 252 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP M 31 *Except*
8-11: 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-1-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-14, 5-12, 5-11, 7-11, 1-15

REACTIONS. (size) 15=0-3-8, 8=0-3-8
Max Horz 15=-290(LC 13)
Max Uplift 15=-272(LC 12), 8=-343(LC 13)
Max Grav 15=1609(LC 2), 8=1629(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-934/186, 2-3=-737/200, 3-5=-1571/342, 5-6=-1538/419, 6-7=-1924/438, 7-8=-2407/481, 1-15=-1577/277
BOT CHORD 14-15=-152/288, 12-14=-252/1343, 11-12=-244/1630, 10-11=-275/1946, 8-10=-276/1940
WEBS 2-14=-32/313, 3-14=-1128/295, 3-12=-133/675, 5-12=-274/198, 5-11=-282/201, 6-11=-88/774, 7-11=-637/261, 7-10=0/283, 1-14=-208/1232

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-11-11, Interior(1) 3-11-11 to 4-8-8, Exterior(2R) 4-8-8 to 10-1-8, Interior(1) 10-1-8 to 24-2-8, Exterior(2R) 24-2-8 to 29-7-8, Interior(1) 29-7-8 to 39-7-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=272, 8=343.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.	T28917249
3287790	T20	Piggyback Base	3	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:18 2022 Page 1
ID:RJx_oquQFtIOyRxnYGDwOmz6OgW-RMPB4GwXqzzH429DUBcZ2vmhE_Vn3z8FSIfCClyWnKp

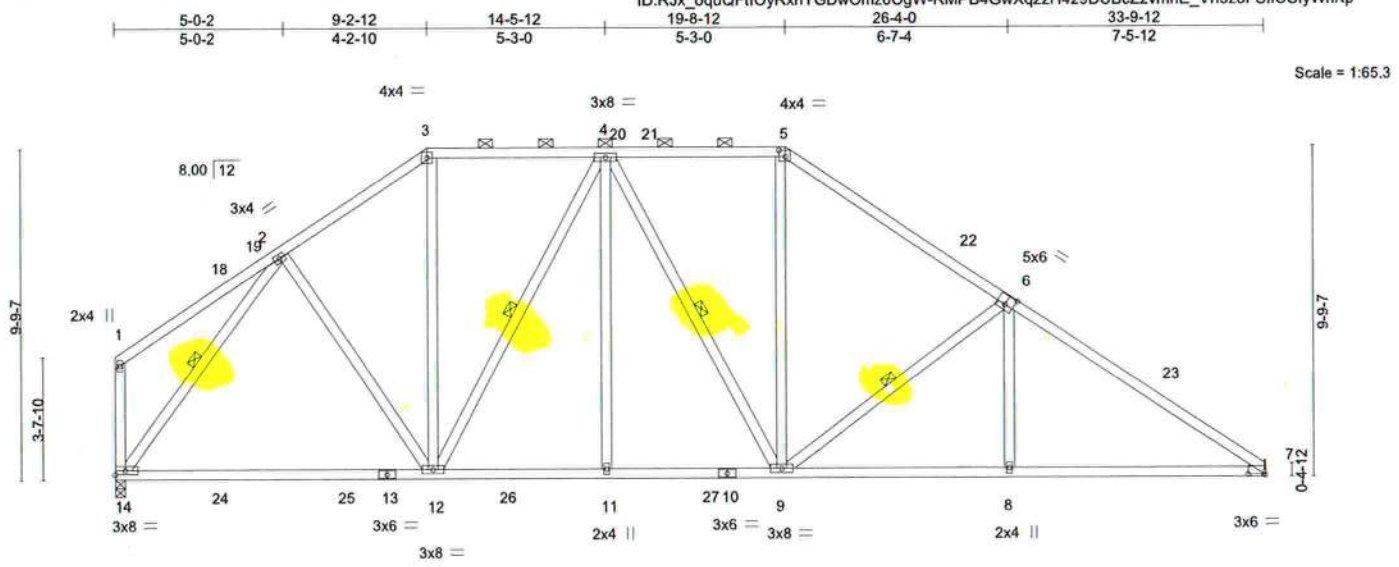

Plate Offsets (X,Y)-- [5:0-2-4,0-2-4], [6:0-3-0,0-3-4], [7:0-6-0,0-0-3]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.69	Vert(LL)	-0.33	12-14	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.98	Vert(CT)	-0.54	12-14	>745	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.07	7	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 227 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-4-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-1-10 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 12-14.
WEBS 1 Row at midpt 4-12, 4-9, 6-9, 2-14

REACTIONS. (size) 14=0-3-8, 7=Mechanical
Max Horz 14=-205(LC 13)
Max Uplift 14=-240(LC 12), 7=-268(LC 13)
Max Grav 14=1428(LC 2), 7=1375(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1304/299, 3-4=-1042/284, 4-5=-1236/354, 5-6=-1572/362, 6-7=-2084/406
BOT CHORD 12-14=-192/916, 11-12=-164/1255, 9-11=-164/1255, 8-9=-241/1671, 7-8=-241/1673
WEBS 2-12=-94/360, 3-12=-103/507, 4-12=-493/174, 5-9=-92/596, 6-9=-662/266, 6-8=0/305, 2-14=-1383/220

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-6-5, Interior(1) 3-6-5 to 9-2-12, Exterior(2R) 9-2-12 to 14-0-2, Interior(1) 14-0-2 to 19-8-12, Exterior(2R) 19-8-12 to 24-6-2, Interior(1) 24-6-2 to 33-9-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=240, 7=268.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917250
3287790	T21	Piggyback Base	3	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:19 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-vYzZlcw9bG58iCkP2u7ob7IrBNvqoRUOhyPlkkyWnKo

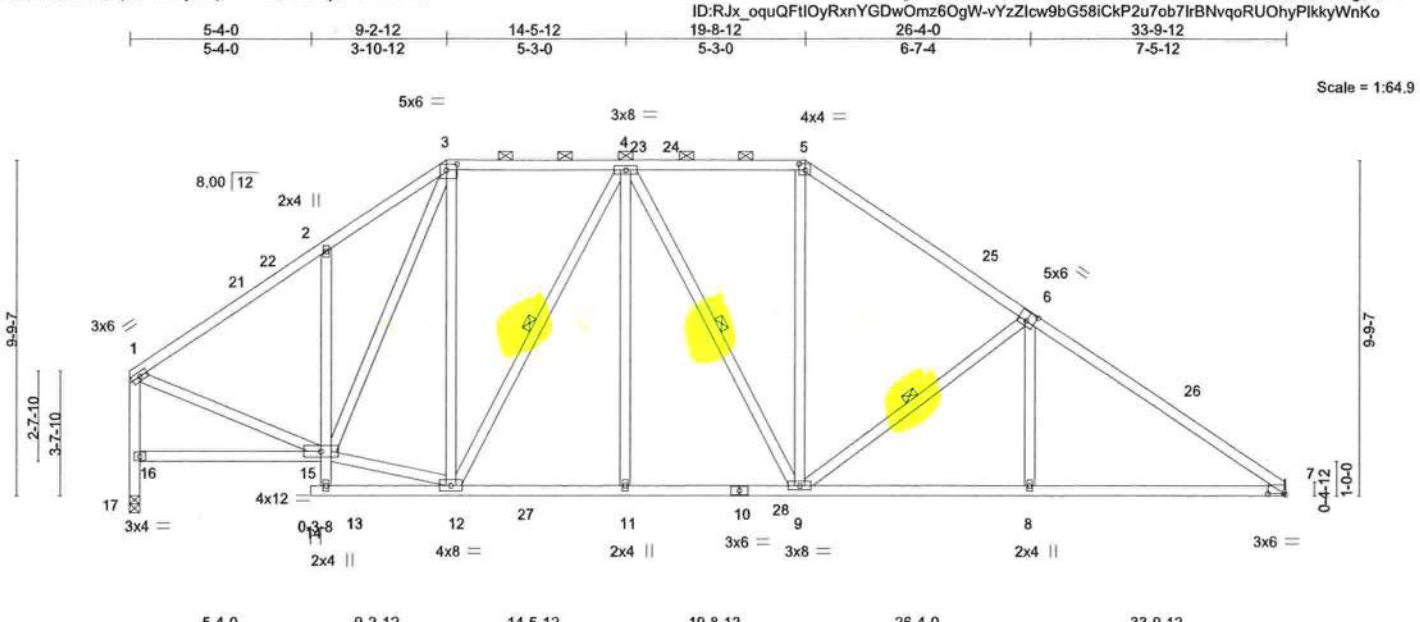

Plate Offsets (X,Y)-- [3:0-3-12,0-2-0], [5:0-2-4,0-2-4], [6:0-3-0,0-3-4], [7:0-6-0,0-0-3]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.74	Vert(LL)	-0.12	8-20	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.74	Vert(CT)	-0.23	8-20	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.08	7	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 242 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
2-13: 2x4 SP No.3
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-4-2 oc purlins, except end verticals, and 2-0-0 oc purlins (5-1-14 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 12-13.
10-0-0 oc bracing: 13-15
WEBS 1 Row at midpt 4-12, 4-9, 6-9

REACTIONS. (size) 7=Mechanical, 17=0-3-8
Max Horz 17=-205(LC 13)
Max Uplift 7=-267(LC 13), 17=-238(LC 12)
Max Grav 7=1370(LC 2), 17=1394(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1378/262, 2-3=-1354/390, 3-4=-1009/286, 4-5=-1227/352, 5-6=-1561/360, 6-7=-2075/404, 16-17=-1394/238, 1-16=-1290/254
BOT CHORD 15-16=-231/288, 2-15=-292/213, 11-12=-163/1250, 9-11=-163/1250, 8-9=-239/1664, 7-8=-239/1666
WEBS 12-15=-159/1012, 3-15=-167/360, 3-12=-146/422, 4-12=-557/166, 5-9=-92/590, 6-9=-664/265, 6-8=0/307, 1-15=-199/1135, 4-11=0/290

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-6-5, Interior(1) 3-6-5 to 9-2-12, Exterior(2R) 9-2-12 to 14-0-2, Interior(1) 14-0-2 to 19-8-12, Exterior(2R) 19-8-12 to 24-6-2, Interior(1) 24-6-2 to 33-9-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) Bearing at joint(s) 17 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=267, 17=238.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.	T28917251
3287790	T22	Piggyback Base	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:21 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-rx5JjlyQ7uLsxVuo9J9GgYOCPBg3GJRh8GuspdyWnKm

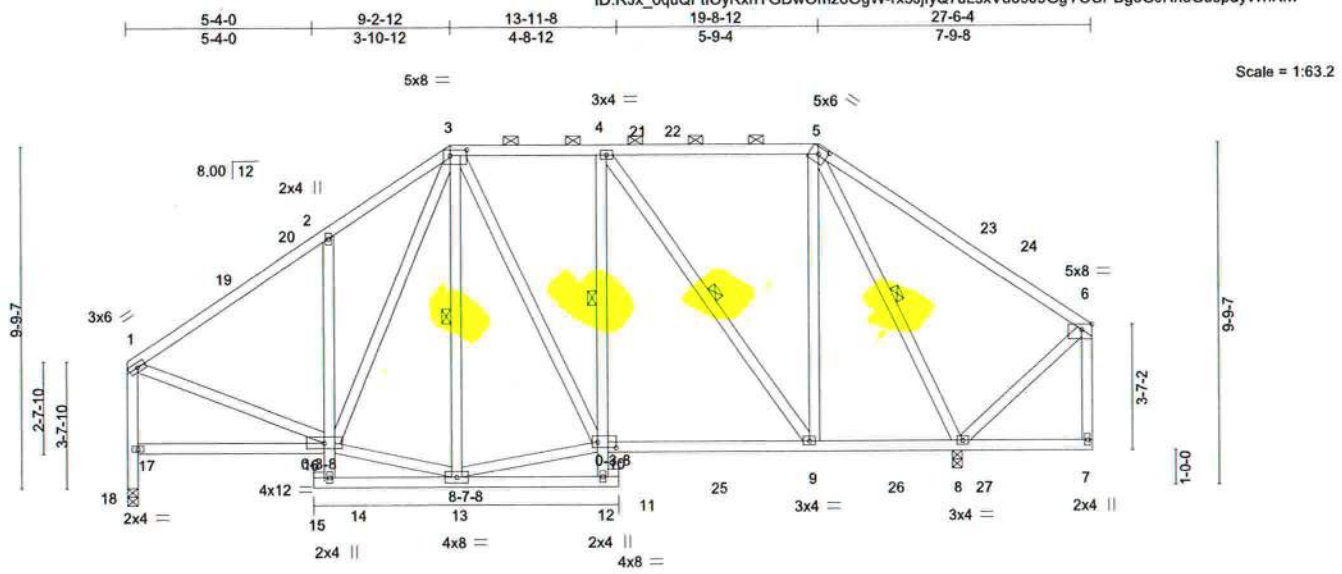

Plate Offsets (X,Y)-- [3:0-5-12,0-2-0], [5:0-3-0,0-2-3], [6:0-3-8,Edge], [10:0-6-4,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.69	Vert(LL)	-0.07	9-10	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.44	Vert(CT)	-0.13	9-10	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.06	8	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 229 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
2-14,4-12: 2x4 SP No.3
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-10-5 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 13-14,12-13.
1 Row at midpt 4-10
10-0-0 oc bracing: 14-16, 10-12
WEBS 1 Row at midpt 3-13, 4-9, 5-8

REACTIONS. (size) 8=0-3-8, 18=0-3-8
Max Horz 18=132(LC 9)
Max Uplift 8=-228(LC 13), 18=-176(LC 12)
Max Grav 8=1318(LC 2), 18=953(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-896/214, 2-3=-882/343, 3-4=-675/222, 4-5=-384/172, 5-6=-54/263, 17-18=-953/176, 1-17=-851/197
BOT CHORD 2-16=-296/214, 4-10=-11/254, 9-10=-167/679, 8-9=-69/373
WEBS 13-16=-139/583, 3-16=-215/414, 10-13=-134/598, 3-10=-121/271, 4-9=-526/166, 5-9=-95/666, 5-8=-1144/188, 1-16=-74/702

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 9-2-12, Exterior(2R) 9-2-12 to 13-6-4, Interior(1) 13-6-4 to 19-8-12, Exterior(2R) 19-8-12 to 23-11-11, Interior(1) 23-11-11 to 27-4-8 zone; cantilever right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Bearing at joint(s) 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=228, 18=176.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917252
3287790	T23	Piggyback Base	3	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:22 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-K7eiwez2uBTjZfT_j0hVClwNAbtr?kmqNwdPL3yWnKl

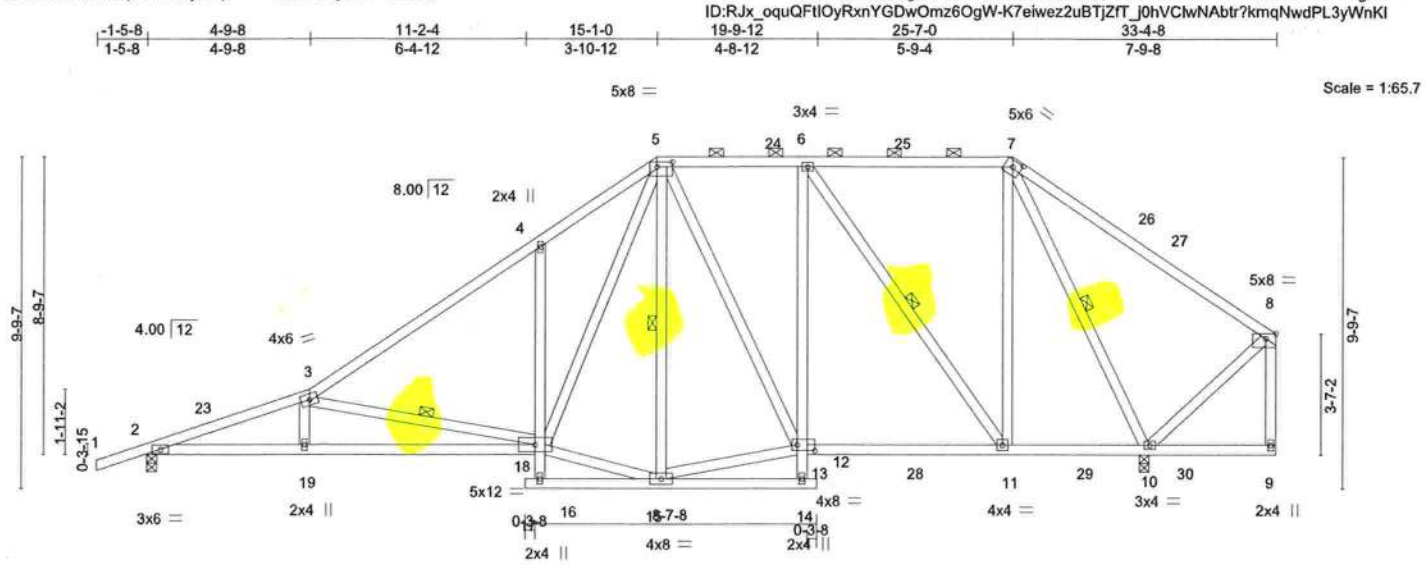

Plate Offsets (X,Y)-- [5:0-5-8,0-1-12], [7:0-3-0,0-2-3], [8:0-3-8,Edge], [12:0-6-4,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.69	Vert(LL)	-0.23	18-19	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.98	Vert(CT)	-0.42	18-19	>847	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.09	10	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 249 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 4-16,6-14: 2x4 SP No.3
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-1-9 oc purlins, except end verticals, and 2-0-0 oc purlins (5-9-3 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except: 10-0-0 oc bracing: 16-18, 12-14
WEBS 1 Row at midpt 3-18, 5-15, 6-11, 7-10

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=205(LC 12)
Max Uplift 2=-249(LC 12), 10=-194(LC 13)
Max Grav 2=1251(LC 2), 10=1558(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3176/673, 3-4=-1764/415, 4-5=-1731/566, 5-6=-963/333, 6-7=-501/217, 7-8=-73/262
BOT CHORD 2-19=-728/2988, 18-19=-732/2970, 4-18=-362/263, 6-12=-55/477, 11-12=-187/968, 10-11=-77/486
WEBS 3-18=-1603/408, 15-18=-148/961, 5-18=-401/1270, 5-15=-346/107, 12-15=-169/948, 6-11=-820/217, 7-11=-126/904, 7-10=-1407/389

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-5-8 to 1-10-9, Interior(1) 1-10-9 to 15-1-0, Exterior(2R) 15-1-0 to 18-5-1, Interior(1) 18-5-1 to 25-7-0, Exterior(2R) 25-7-0 to 28-11-1, Interior(1) 28-11-1 to 33-2-12 zone; cantilever right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=249, 10=194.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

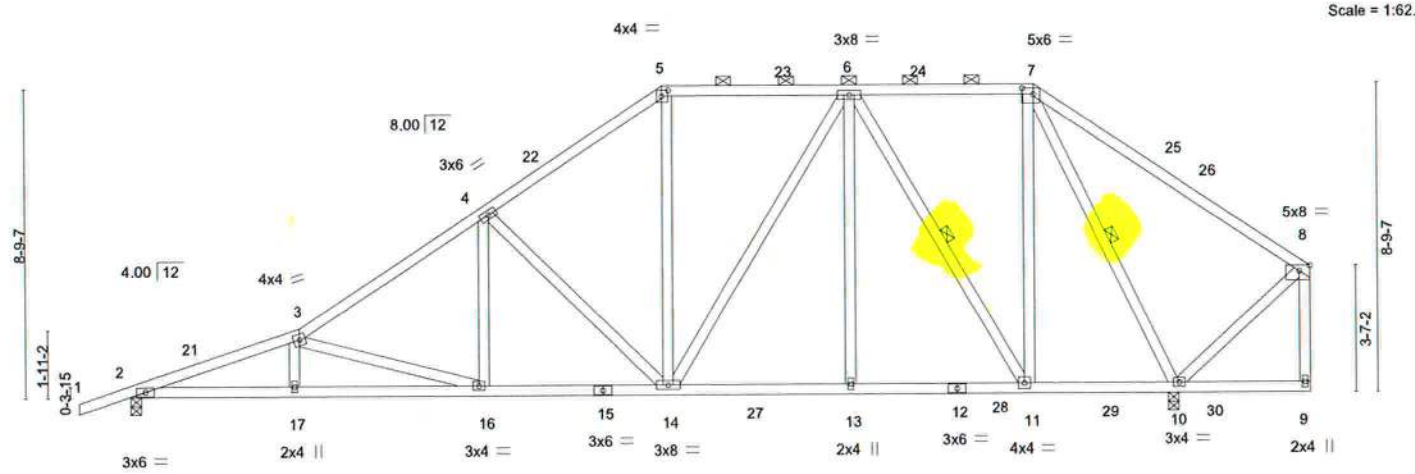
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.	T28917253
3287790	T24	Piggyback Base	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:23 2022 Page 1
ID:RJx_oquQFtIOyRxnYGDwOmz6OgW-oJC48_zgfVcZBp2BHkCklzTYm?Gxk9G_baNzuWyWnKk

-1-5-8	4-9-8	10-0-0	15-1-0	20-4-0	25-7-0	33-4-8
1-5-8	4-9-8	5-2-8	5-1-0	5-3-0	5-3-0	7-9-8

Scale = 1:62.8



4-9-8	10-0-0	15-1-0	20-4-0	25-7-0	29-8-0	33-4-8
4-9-8	5-2-8	5-1-0	5-3-0	5-3-0	4-1-0	3-8-8

Plate Offsets (X,Y)-- [5:0-2-4,0-2-0], [7:0-3-12,0-2-0], [8:0-3-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.70	Vert(LL)	-0.17	16-17	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.79	Vert(CT)	-0.29	16-17	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.08	10	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 225 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-1-3 oc purlins, except end verticals, and 2-0-0 oc purlins (5-6-1 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 6-11-7 oc bracing.
WEBS 1 Row at midpt 6-11, 7-10

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=205(LC 12)
Max Uplift 2=-252(LC 12), 10=-197(LC 13)
Max Grav 2=1246(LC 2), 10=1559(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3100/672, 3-4=-1937/459, 4-5=-1323/388, 5-6=-1049/369, 6-7=-495/219, 7-8=-73/261
BOT CHORD 2-17=-724/2921, 16-17=-727/2908, 14-16=-392/1598, 13-14=-178/918, 11-13=-178/918, 10-11=-78/480
WEBS 3-16=-1389/350, 4-16=-75/615, 4-14=-810/274, 5-14=-77/497, 6-14=-112/330, 6-11=-840/215, 7-11=-138/910, 7-10=-1388/392, 6-13=0/296

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-5-8 to 1-10-9, Interior(1) 1-10-9 to 15-1-0, Exterior(2R) 15-1-0 to 18-5-1, Interior(1) 18-5-1 to 25-7-0, Exterior(2R) 25-7-0 to 28-11-1, Interior(1) 28-11-1 to 33-2-12 zone; cantilever right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=252, 10=197.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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October 5,2022

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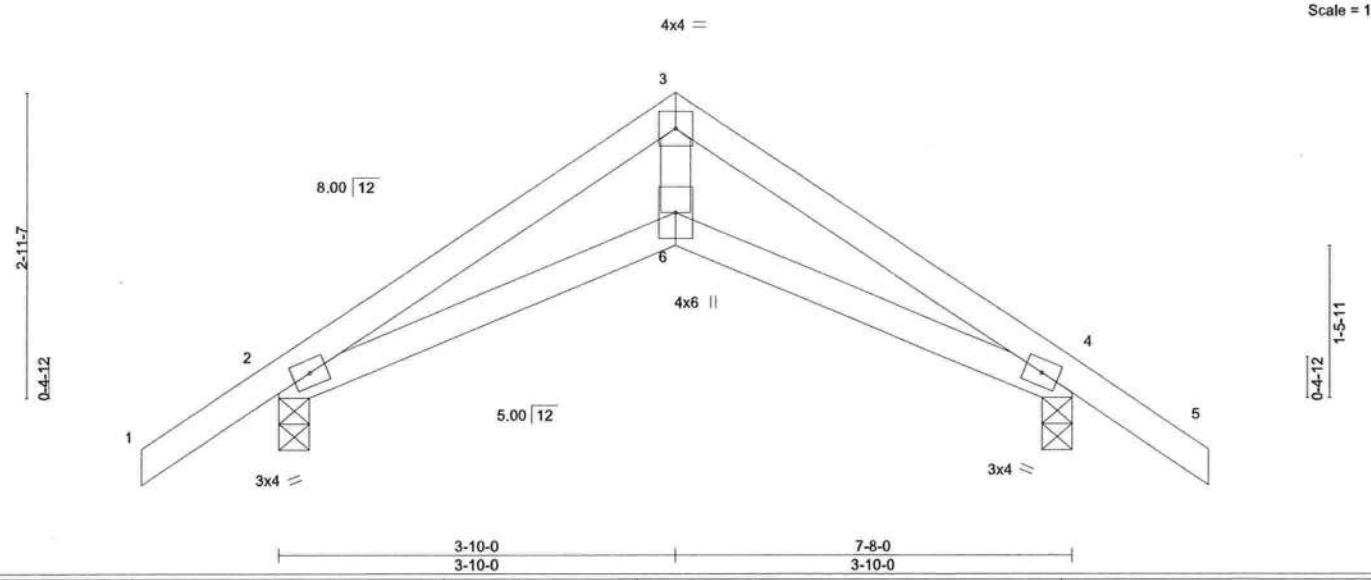
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917254
3287790	T25	SCISSORS	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:24 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-GWmSLK_IQpkQozdNrRjzIA0sfOl6Tms7qE6WQyyWnKj

-1-4-0 / 1-4-0 | 3-10-0 / 3-10-0 | 7-8-0 / 3-10-0 | 9-0-0 / 1-4-0

Scale = 1:21.5



3-10-0 / 3-10-0 | 7-8-0 / 3-10-0

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.12	Vert(LL)	-0.01	6	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.16	Vert(CT)	-0.02	6	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.02	4	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 33 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

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

REACTIONS. (size) 2=0-3-8, 4=0-3-8
Max Horz 2=-76(LC 10)
Max Uplift 2=-85(LC 12), 4=-85(LC 13)
Max Grav 2=356(LC 1), 4=356(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-595/109, 3-4=-596/108
BOT CHORD 2-6=-31/521, 4-6=-29/518
WEBS 3-6=-13/452

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 3-10-0, Exterior(2R) 3-10-0 to 7-0-15, Interior(1) 7-0-15 to 9-0-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 2, 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

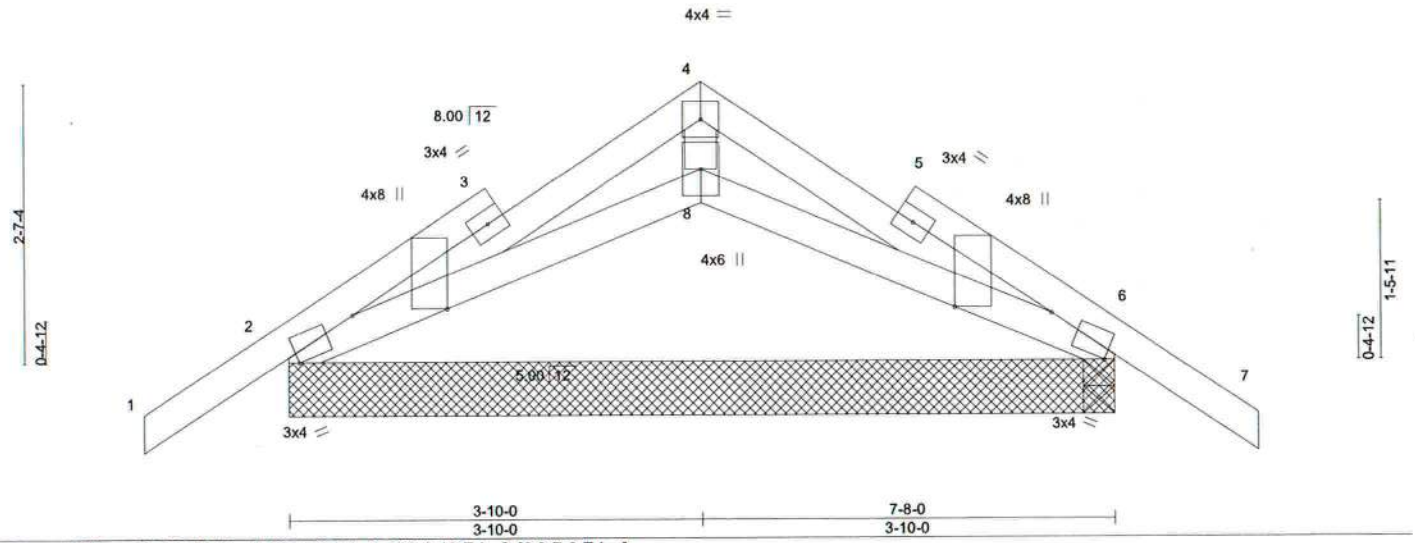
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	T25G	SCISSORS	1	1	T28917255
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:25 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-kiKqYf?wA6sHQ7CZO9ECqOY0no68CE3H3us4yOyWnKi

-1-4-0 / 1-4-0 | 3-10-0 / 3-10-0 | 7-8-0 / 3-10-0 | 9-0-0 / 1-4-0

Scale = 1:20.6



3-10-0 / 3-10-0 | 7-8-0 / 3-10-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.16	Vert(LL)	-0.01	2-8	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.11	Vert(CT)	-0.01	2-8	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-S							Weight: 37 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

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

REACTIONS. All bearings 7-8-0.
(lb) - Max Horz 2=-68(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 8
Max Grav All reactions 250 lb or less at joint(s) 2, 6, 6 except 8=292(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 3-10-0, Exterior(2R) 3-10-0 to 6-10-0, Interior(1) 6-10-0 to 9-0-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6, 8.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917256
3287790	T26	SCISSORS	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:26 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-CuuCm?0YxQ_82HmmysIRNb5BwCRExf1QlYbdUqyWnKh

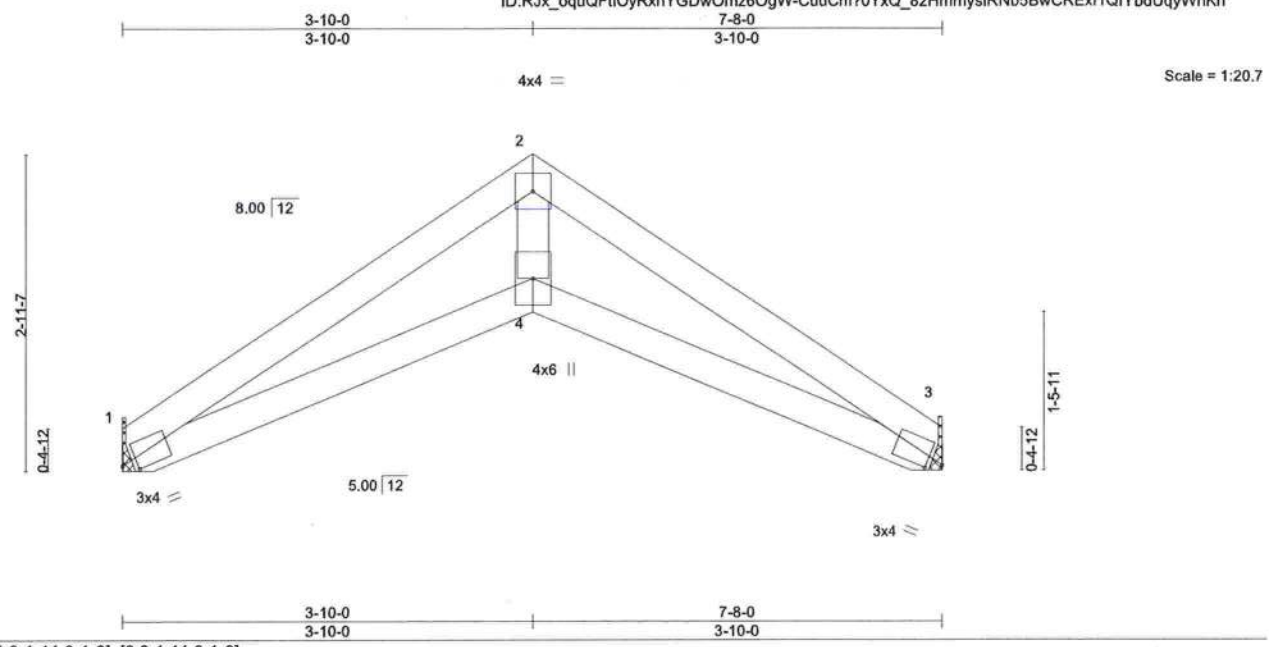

Plate Offsets (X,Y)-- [1:0-1-11,0-1-0], [3:0-1-11,0-1-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.13	Vert(LL)	-0.01	4	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.18	Vert(CT)	-0.03	4-10	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.03	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 28 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

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

REACTIONS. (size) 1=Mechanical, 3=Mechanical
Max Horz 1=-56(LC 8)
Max Uplift 1=-55(LC 12), 3=-55(LC 13)
Max Grav 1=284(LC 1), 3=284(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-653/227, 2-3=-653/227
BOT CHORD 1-4=-136/560, 3-4=-136/560
WEBS 2-4=-112/494

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 3-10-0, Exterior(2R) 3-10-0 to 7-0-15, Interior(1) 7-0-15 to 7-8-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

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Date:

October 5,2022

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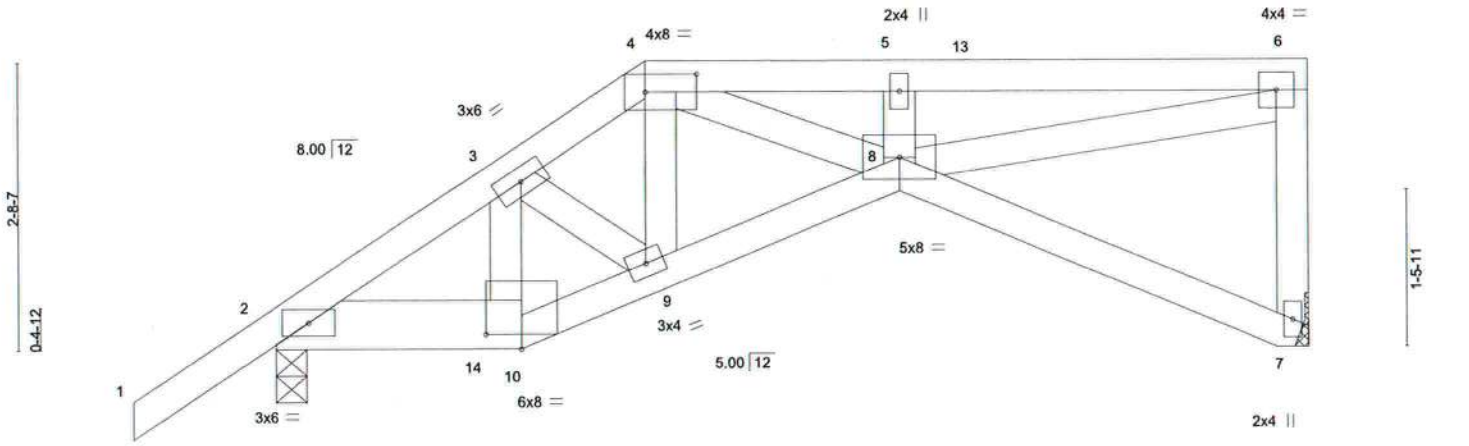
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	T27	Half Hip Girder	1	1	T28917257
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:27 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-g4SbzL1Bik6?fQLyWZGgvpeLccnng3aZWCLA1HyWnKg

-1-4-0 | 2-3-8 | 3-5-8 | 5-10-0 | 9-8-0
1-4-0 | 2-3-8 | 1-2-0 | 2-4-8 | 3-10-0

Scale = 1:20.8



2-3-8 | 3-5-8 | 5-10-0 | 9-8-0
2-3-8 | 1-2-0 | 2-4-8 | 3-10-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.20	Vert(LL)	-0.03	8	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.16	Vert(CT)	-0.05	8	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.36	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 54 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
2-10: 2x6 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-9-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=Mechanical, 2=0-3-8
Max Horz 2=107(LC 8)
Max Uplift 7=-102(LC 5), 2=-157(LC 8)
Max Grav 7=372(LC 1), 2=528(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-598/157, 3-4=-594/175, 4-5=-943/268, 5-6=-943/268, 6-7=-335/112
BOT CHORD 2-10=-177/478, 9-10=-189/517, 8-9=-173/527
WEBS 4-8=-143/493, 6-8=-270/950

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=102, 2=157.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 123 lb down and 73 lb up at 1-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-54, 4-6=-54, 2-10=-20, 8-10=-20, 7-8=-20
Concentrated Loads (lb)
Vert: 14=-123(F)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917258
3287790	T28	Half Hip	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:28 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-8H0zBh1pT1EsHaw84HnvS0AXD07_PXJjls4kZjyWnKf

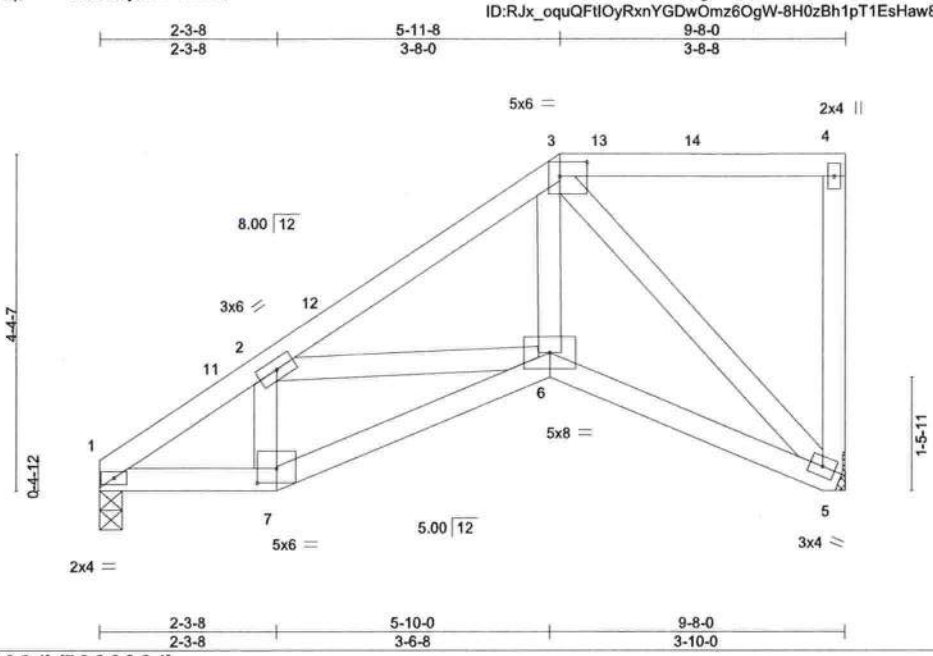

Plate Offsets (X,Y)-- [3:0-4-4,0-2-4], [7:0-3-0,0-2-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.14	Vert(LL)	-0.01	6-7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.16	Vert(CT)	-0.02	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 56 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

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

REACTIONS. (size) 1=0-3-8, 5=Mechanical
Max Horz 1=138(LC 12)
Max Uplift 1=-63(LC 12), 5=-101(LC 12)
Max Grav 1=352(LC 1), 5=352(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-515/126, 2-3=-460/143
BOT CHORD 1-7=-242/424, 6-7=-254/461, 5-6=-169/354
WEBS 3-5=-468/232, 3-6=-137/378

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 5-11-8, Exterior(2E) 5-11-8 to 9-6-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 5=101.

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Philip J. O'Regan PE No.58126
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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

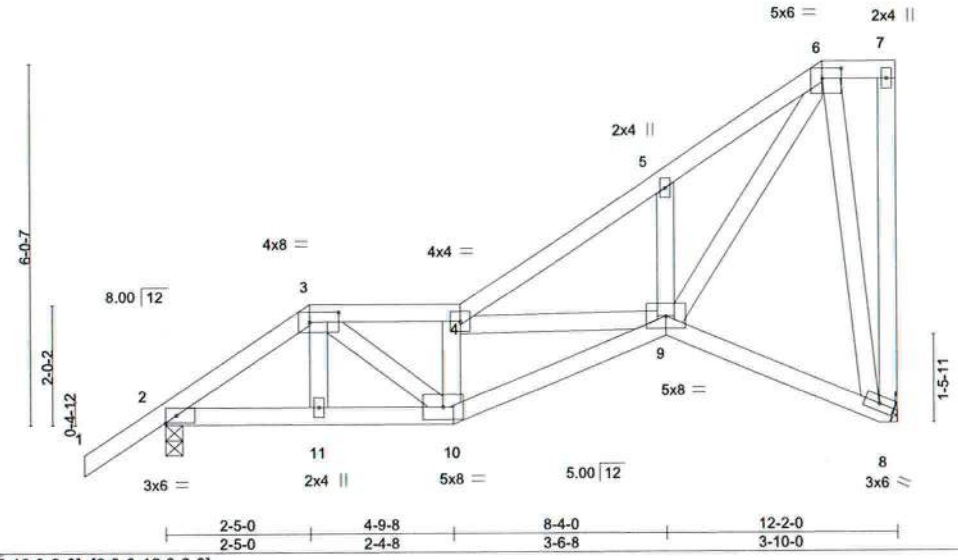
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.	T28917259
3287790	T29	Roof Special Girder	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:30 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-5f7jcN33?fUaWu4XBiqOXRGsopn0tRW0CAZrdcyWnKd

-1-4-0	2-5-0	4-11-0	8-4-0	10-11-8	12-2-0
1-4-0	2-5-0	2-6-0	3-5-0	2-7-8	1-2-8

Scale = 1:36.9



2-5-0	4-9-8	8-4-0	12-2-0
2-5-0	2-4-8	3-6-8	3-10-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.14	Vert(LL)	-0.02	10	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.25	Vert(CT)	-0.04	9-10	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.29	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 82 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

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

REACTIONS. (size) 8=Mechanical, 2=0-3-8
Max Horz 2=221(LC 8)
Max Uplift 8=-151(LC 8), 2=-104(LC 8)
Max Grav 8=439(LC 1), 2=514(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-608/84, 3-4=-731/94, 4-5=-610/99, 5-6=-615/193
BOT CHORD 2-11=-226/474, 10-11=-225/476, 9-10=-266/842
WEBS 3-10=-42/315, 4-10=-447/123, 4-9=-294/63, 6-9=-281/749, 6-8=-415/174

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=151, 2=104.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 78 lb down and 66 lb up at 2-5-0 on top chord, and 23 lb down and 11 lb up at 2-5-0 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
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-3=-54, 3-4=-54, 4-6=-54, 6-7=-54, 10-12=-20, 9-10=-20, 8-9=-20
Concentrated Loads (lb)
Vert: 11=8(F)

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917260
3287790	T30	ROOF SPECIAL	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:31 2022 Page 1
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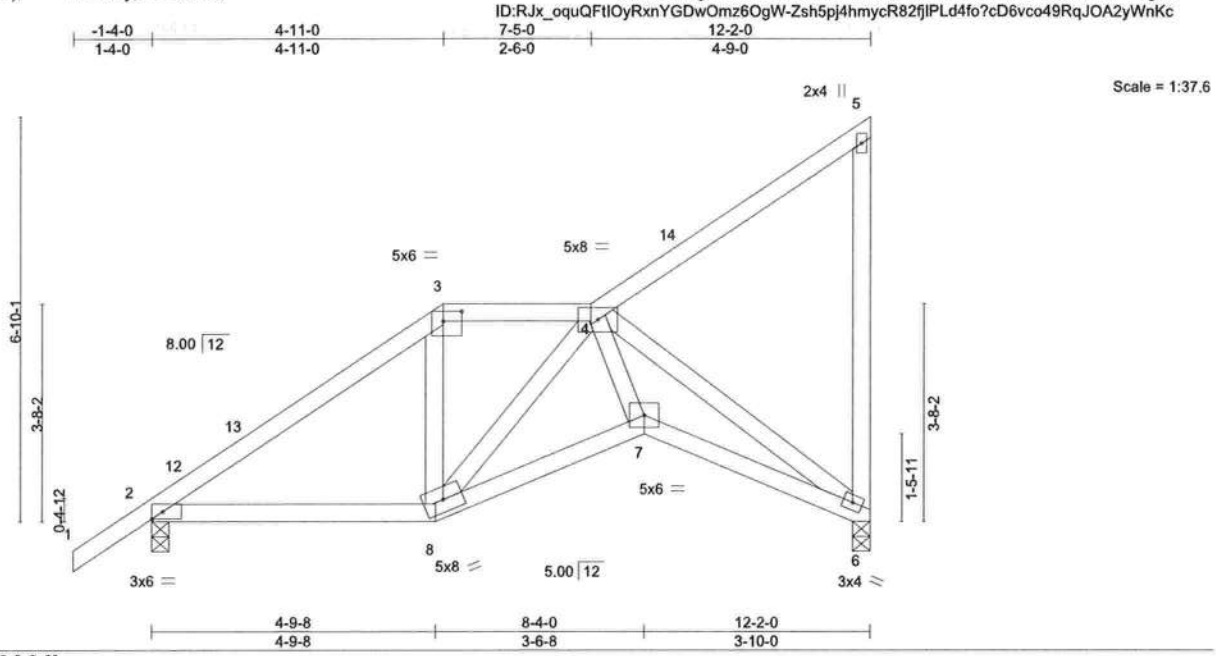

Plate Offsets (X,Y)-- [3:0-3-12,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.26	Vert(LL)	-0.03	7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.27	Vert(CT)	-0.06	7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.05	6	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 73 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

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

REACTIONS. (size) 6=0-3-8, 2=0-3-8
Max Horz 2=245(LC 12)
Max Uplift 6=-177(LC 12), 2=-92(LC 12)
Max Grav 6=441(LC 1), 2=521(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-551/49, 3-4=-397/87
BOT CHORD 2-8=-186/400, 7-8=-227/605, 6-7=-321/943
WEBS 4-8=-252/32, 4-7=-198/715, 4-6=-1066/362

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 4-11-0, Exterior(2E) 4-11-0 to 7-5-0, Interior(1) 7-5-0 to 12-0-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 6=177.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917261
3287790	T31	ROOF SPECIAL	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:32 2022 Page 1
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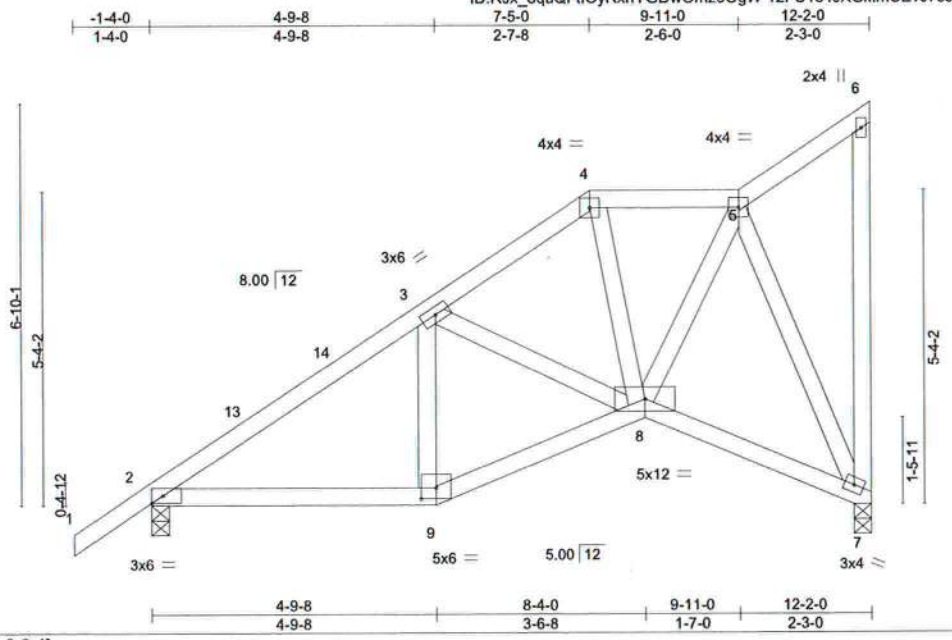

Plate Offsets (X,Y)-- [9:0-3-0,0-2-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.16	Vert(LL)	-0.02	9-12	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.23	Vert(CT)	-0.04	9-12	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 80 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

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

REACTIONS. (size) 7=0-3-8, 2=0-3-8
Max Horz 2=245(LC 12)
Max Uplift 7=-177(LC 12), 2=-92(LC 12)
Max Grav 7=441(LC 1), 2=521(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-563/56, 3-4=-406/83, 4-5=-311/84
BOT CHORD 2-9=-204/420, 8-9=-219/464
WEBS 5-8=-144/325, 5-7=-463/192

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 7-5-0, Exterior(2E) 7-5-0 to 9-11-0, Interior(1) 9-11-0 to 12-0-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 7=177.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917262
3287790	T32	Roof Special	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:33 2022 Page 1
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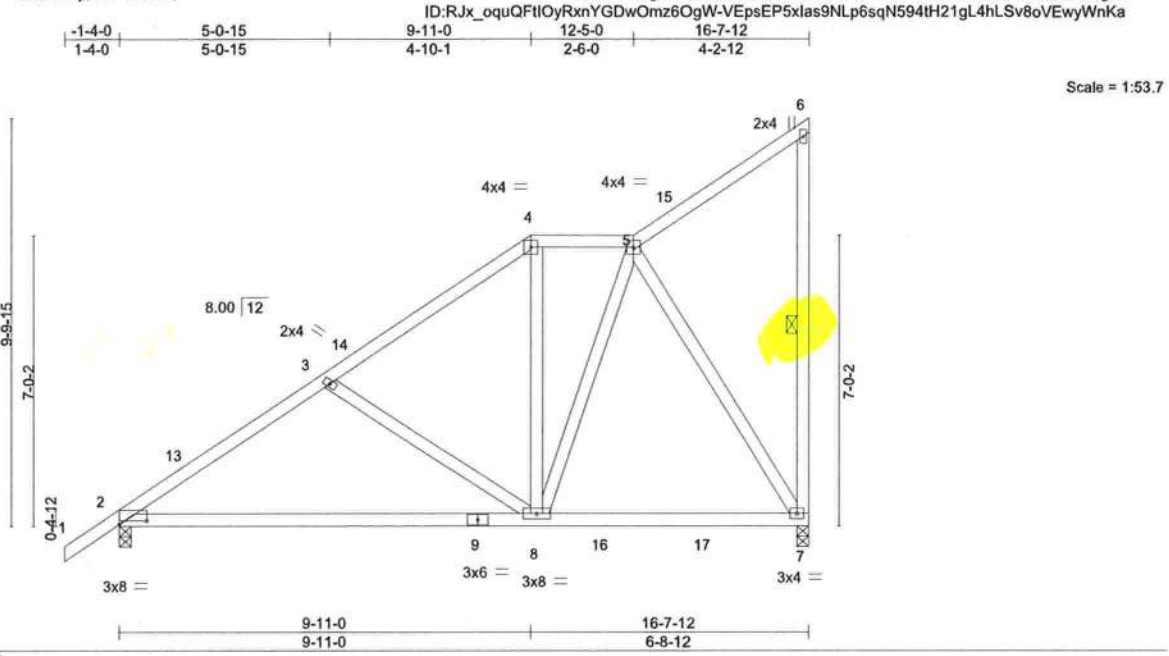

Plate Offsets (X,Y)-- [2:0-8-0,0-1-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.52	Vert(LL)	-0.20	8-12	>998	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.79	Vert(CT)	-0.40	8-12	>490	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 110 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-7-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-7

REACTIONS. (size) 7=0-3-8, 2=0-3-8
Max Horz 2=347(LC 12)
Max Uplift 7=-256(LC 12), 2=-103(LC 12)
Max Grav 7=732(LC 19), 2=758(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-823/89, 3-4=-597/36, 4-5=-442/70
BOT CHORD 2-8=-329/752, 7-8=-117/330
WEBS 3-8=-345/197, 5-8=-139/415, 5-7=-626/223

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 9-11-0, Exterior(2E) 9-11-0 to 12-5-0, Interior(1) 12-5-0 to 16-6-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=256, 2=103.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917263
3287790	T33	Half Hip	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:33 2022 Page 1
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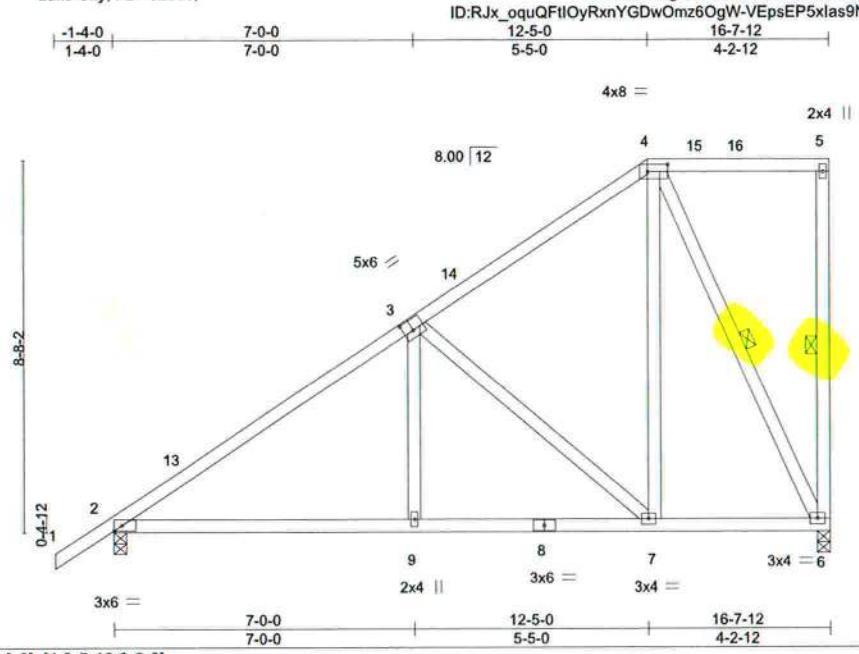

Plate Offsets (X,Y)-- [3:0-2-12,0-3-0], [4:0-5-12,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.43	Vert(LL)	-0.06	9-12	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.43	Vert(CT)	-0.13	9-12	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 110 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-6, 4-6

REACTIONS. (size) 6=0-3-8, 2=0-3-8
Max Horz 2=312(LC 12)
Max Uplift 6=-208(LC 12), 2=-120(LC 12)
Max Grav 6=608(LC 1), 2=685(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-788/90, 3-4=-371/60
BOT CHORD 2-9=-270/590, 7-9=-270/593
WEBS 3-9=0/280, 3-7=-496/230, 4-7=-109/409, 4-6=-524/213

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 12-5-0, Exterior(2E) 12-5-0 to 16-6-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=208, 2=120.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917264
3287790	T34	Half Hip	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:34 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-zRNERk6a3t_0?VOIQYuKhHQUIQ5HpBfb7oY2mNyWnKZ

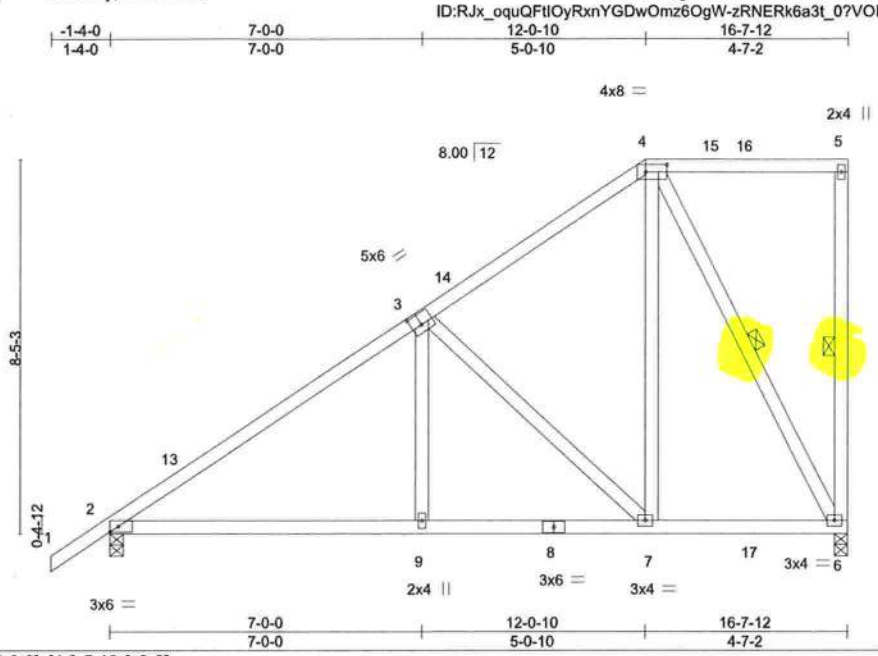

Plate Offsets (X,Y)-- [3:0-2-12,0-3-0], [4:0-5-12,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.42	Vert(LL)	-0.08	9-12	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.49	Vert(CT)	-0.15	9-12	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 109 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-11-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-6, 4-6

REACTIONS. (size) 6=0-3-8, 2=0-3-8
Max Horz 2=304(LC 12)
Max Uplift 6=-202(LC 12), 2=-124(LC 12)
Max Grav 6=676(LC 2), 2=768(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-856/96, 3-4=-412/72
BOT CHORD 2-9=-266/711, 7-9=-266/716, 6-7=-100/298
WEBS 3-9=0/272, 3-7=-571/223, 4-7=-110/559, 4-6=-613/208

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 12-0-10, Exterior(2E) 12-0-10 to 16-6-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=202, 2=124.

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Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917265
3287790	T35	Half Hip	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:35 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-Rdxcf47CqB6tdfyU_FQZEVzcQqRiYisIMSHbJpyWnKY

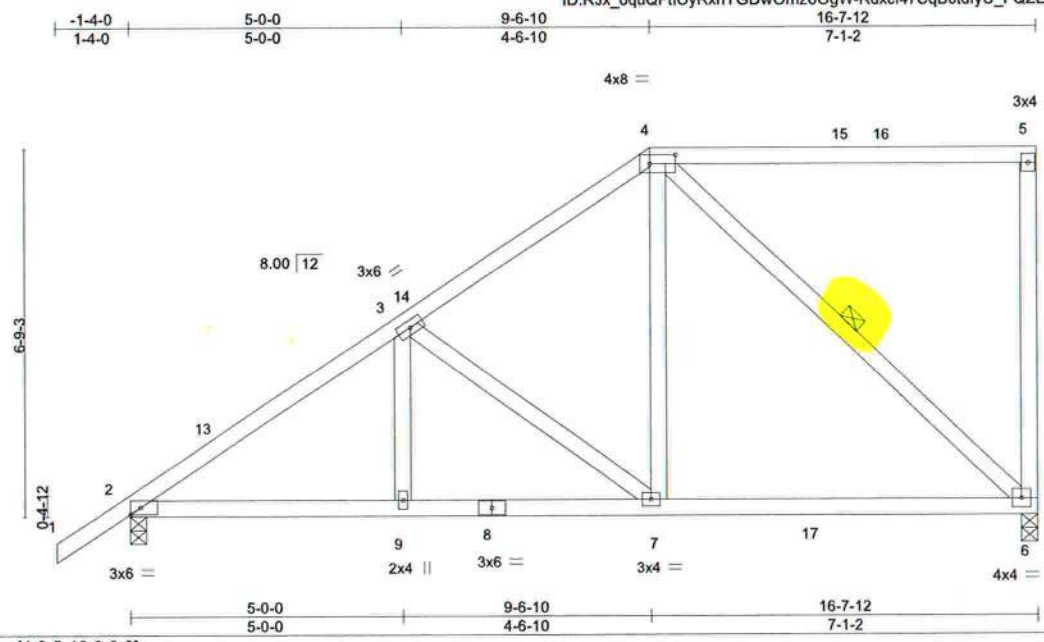

Plate Offsets (X,Y)-- [4:0-5-12,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.59	Vert(LL)	-0.09	6-7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.48	Vert(CT)	-0.16	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 100 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-6

REACTIONS. (size) 6=0-3-8, 2=0-3-8
Max Horz 2=246(LC 12)
Max Uplift 6=-161(LC 12), 2=-146(LC 12)
Max Grav 6=677(LC 2), 2=759(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-923/151, 3-4=-601/122
BOT CHORD 2-9=-279/773, 7-9=-279/773, 6-7=-143/463
WEBS 3-7=-401/170, 4-7=-56/506, 4-6=-608/190

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 9-6-10, Exterior(2R) 9-6-10 to 13-9-9, Interior(1) 13-9-9 to 16-6-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=161, 2=146.

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Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917266
3287790	T36	HALF HIP GIRDER	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:36 2022 Page 1
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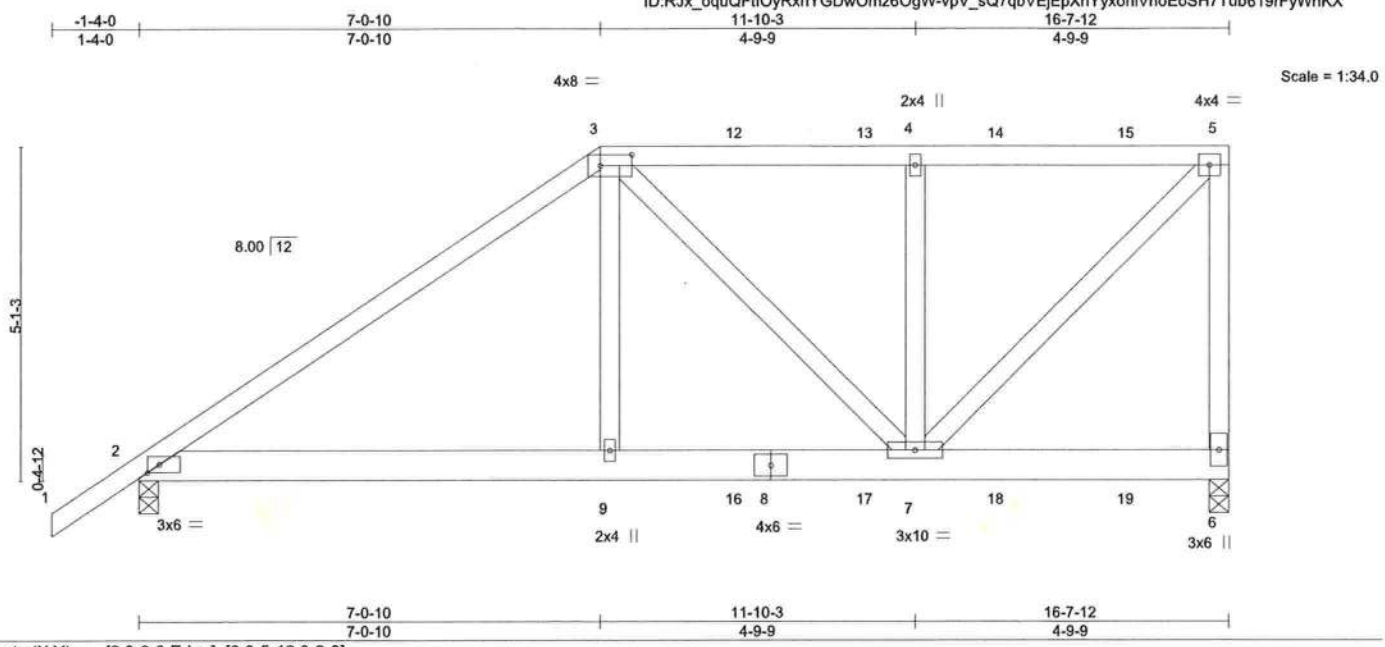

Plate Offsets (X,Y)-- [2:0-2-3,Edge], [3:0-5-12,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.62	Vert(LL)	0.05	9-11	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.44	Vert(CT)	-0.08	9-11	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.45	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 106 lb	FT = 20%

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

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

REACTIONS. (size) 6=0-3-8, 2=0-3-8
Max Horz 2=189(LC 8)
Max Uplift 6=-509(LC 5), 2=-346(LC 8)
Max Grav 6=1053(LC 1), 2=943(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1245/493, 3-4=-804/402, 4-5=-804/402, 5-6=-962/499
BOT CHORD 2-9=-467/950, 7-9=-471/964
WEBS 3-9=-150/547, 4-7=-483/383, 5-7=-561/1123

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=509, 2=346.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 111 lb down and 114 lb up at 9-1-6, 111 lb down and 111 lb up at 11-1-6, and 111 lb down and 114 lb up at 13-1-6, and 111 lb down and 116 lb up at 15-1-6 on top chord, and 250 lb down and 163 lb up at 7-0-10, 57 lb down and 27 lb up at 9-1-6, 57 lb down and 27 lb up at 11-1-6, and 57 lb down and 27 lb up at 13-1-6, and 58 lb down and 31 lb up at 15-1-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-3=-54, 3-5=-54, 2-6=-20
Concentrated Loads (lb)
Vert: 9=-242(B) 12=-68(B) 13=-68(B) 14=-68(B) 15=-71(B) 16=-45(B) 17=-45(B) 18=-45(B) 19=-50(B)

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	T37	Common Girder	1	2	T28917267
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:37 2022 Page 1
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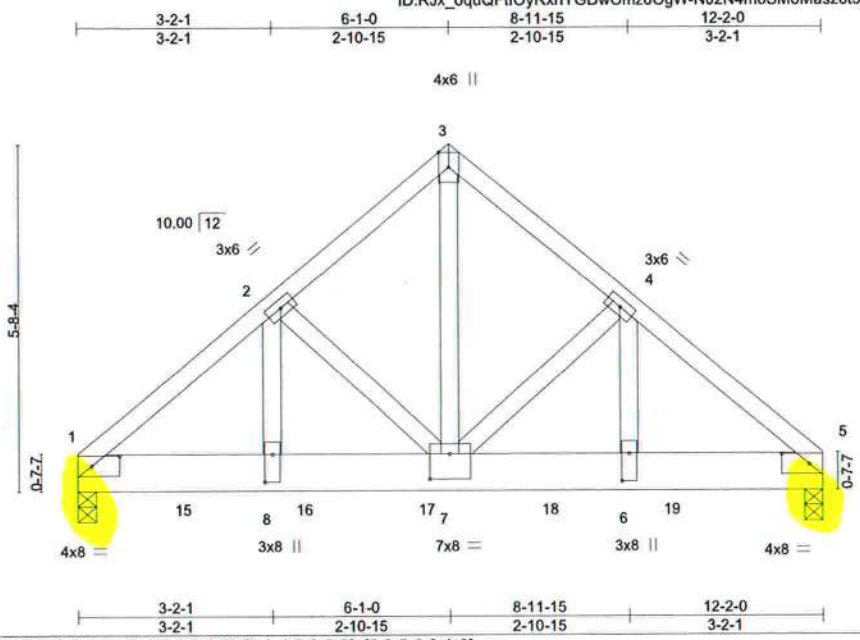

Plate Offsets (X,Y)-- [1:0-5-6,0-2-0], [5:0-5-6,0-2-0], [6:0-5-8,0-1-8], [7:0-4-0,0-5-0], [8:0-5-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.15	Vert(LL)	-0.04	7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.19	Vert(CT)	-0.07	7	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.83	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 173 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-8-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=0-3-8, 5=0-3-8
Max Horz 1=112(LC 5)
Max Uplift 1=-817(LC 8), 5=-988(LC 9)
Max Grav 1=4021(LC 2), 5=4880(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-4867/1002, 2-3=-3572/782, 3-4=-3572/782, 4-5=-4881/1003
BOT CHORD 1-8=-784/3708, 7-8=-784/3708, 6-7=-735/3720, 5-6=-735/3720
WEBS 3-7=-923/4370, 4-7=-1371/366, 4-6=-327/1683, 2-7=-1353/362, 2-8=-322/1665

NOTES-
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.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=817, 5=988.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1355 lb down and 288 lb up at 1-8-12, 1355 lb down and 288 lb up at 3-8-12, 1355 lb down and 288 lb up at 5-8-12, 1350 lb down and 287 lb up at 7-8-12, and 1350 lb down and 287 lb up at 9-8-12, and 1356 lb down and 281 lb up at 11-8-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25

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Date:

October 5,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	T37	Common Girder	1	2	T28917267 Job Reference (optional)

LOAD CASE(S) Standard
Uniform Loads (plf)
Vert: 1-3=-54, 3-5=-54, 9-12=-20
Concentrated Loads (lb)
Vert: 14=-1233(B) 15=-1226(B) 16=-1226(B) 17=-1226(B) 18=-1227(B) 19=-1227(B)

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.	T28917268
3287790	T37G	Common Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:39 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-sCclH69476URU7h3fNzGs7bF_2Zll7FB2PWGv7yWnKV

-1-4-0 | 6-1-0 | 12-2-0 | 13-6-0
1-4-0 | 6-1-0 | 6-1-0 | 1-4-0

4x4 =

Scale = 1:35.3

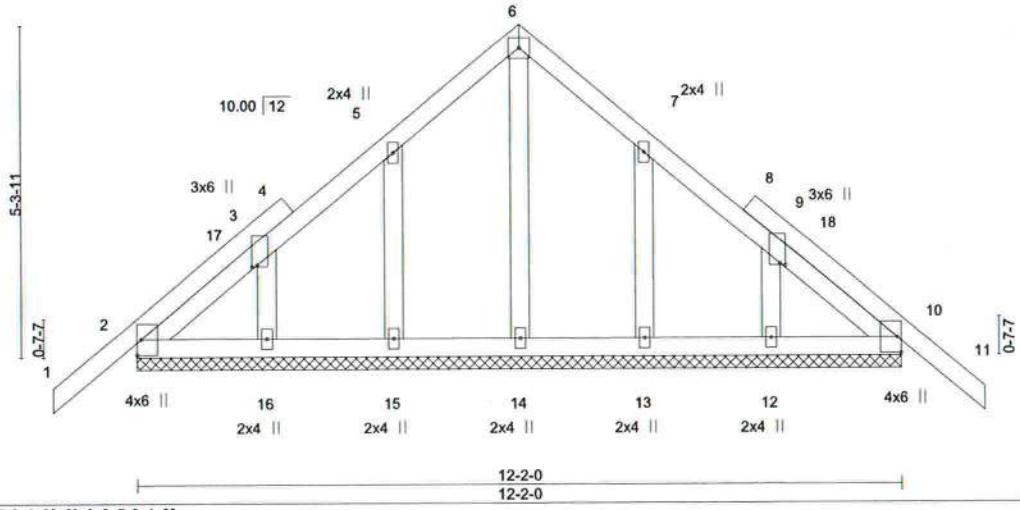

Plate Offsets (X,Y)-- [3:0-0-5,0-1-0], [9:0-0-5,0-1-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.12	Vert(LL)	-0.00	11	n/r	120	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.03	Vert(CT)	-0.01	11	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-S							Weight: 77 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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

REACTIONS. All bearings 12-2-0.
(lb) - Max Horz 2=128(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 15, 16, 13, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 10, 14, 15, 16, 13, 12

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-4-0 to 1-8-0, Exterior(2N) 1-8-0 to 6-1-0, Corner(3R) 6-1-0 to 9-1-0, Exterior(2N) 9-1-0 to 13-6-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10, 15, 16, 13, 12.
10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917269
3287790	T38	Monopitch	3	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:39 2022 Page 1
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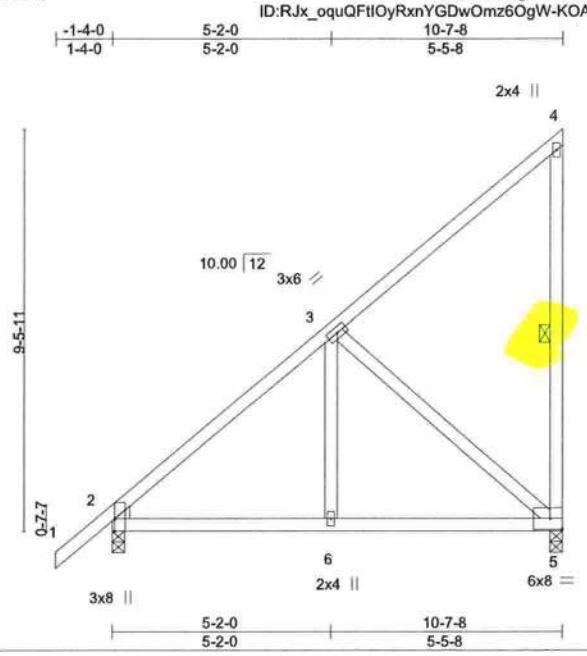

Plate Offsets (X,Y)-- [2:0-3-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.30	Vert(LL)	0.04	5-6	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.27	Vert(CT)	-0.04	5-6	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.32	Horz(CT)	-0.01	2	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 69 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-11-7 oc bracing.
WEBS 1 Row at midpt 4-5

REACTIONS. (size) 2=0-3-8, 5=0-3-8
Max Horz 2=333(LC 12)
Max Uplift 2=-46(LC 9), 5=-236(LC 12)
Max Grav 2=464(LC 1), 5=383(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-409/187
BOT CHORD 2-6=-400/261, 5-6=-400/261
WEBS 3-6=-316/238, 3-5=-339/520

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 10-5-12 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 5=236.

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Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.	T28917270
3287790	T38G	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:40 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-obkVioBKejl9jQrSno?kxYgaMrFkD0cUWj?M_0yWnKT

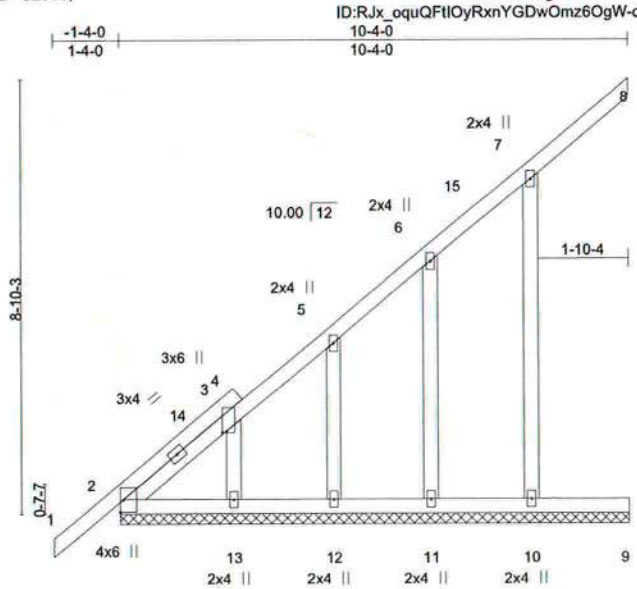

Plate Offsets (X,Y)-- [3:0-0-5,0-1-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.13	Vert(LL)	0.00	1	n/r	120	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.04	Vert(CT)	0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	-0.00	8	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-S							Weight: 67 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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

REACTIONS. All bearings 10-4-0.
(lb) - Max Horz 2=317(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 10, 11, 12, 13
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 9, 10, 11, 12, 13

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-500/248, 3-5=-393/183, 5-6=-302/139

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-4-0 to 1-8-0, Exterior(2N) 1-8-0 to 10-4-0 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 10, 11, 12, 13.

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October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917271
3287790	T41	Roof Special Girder	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:42 2022 Page 1
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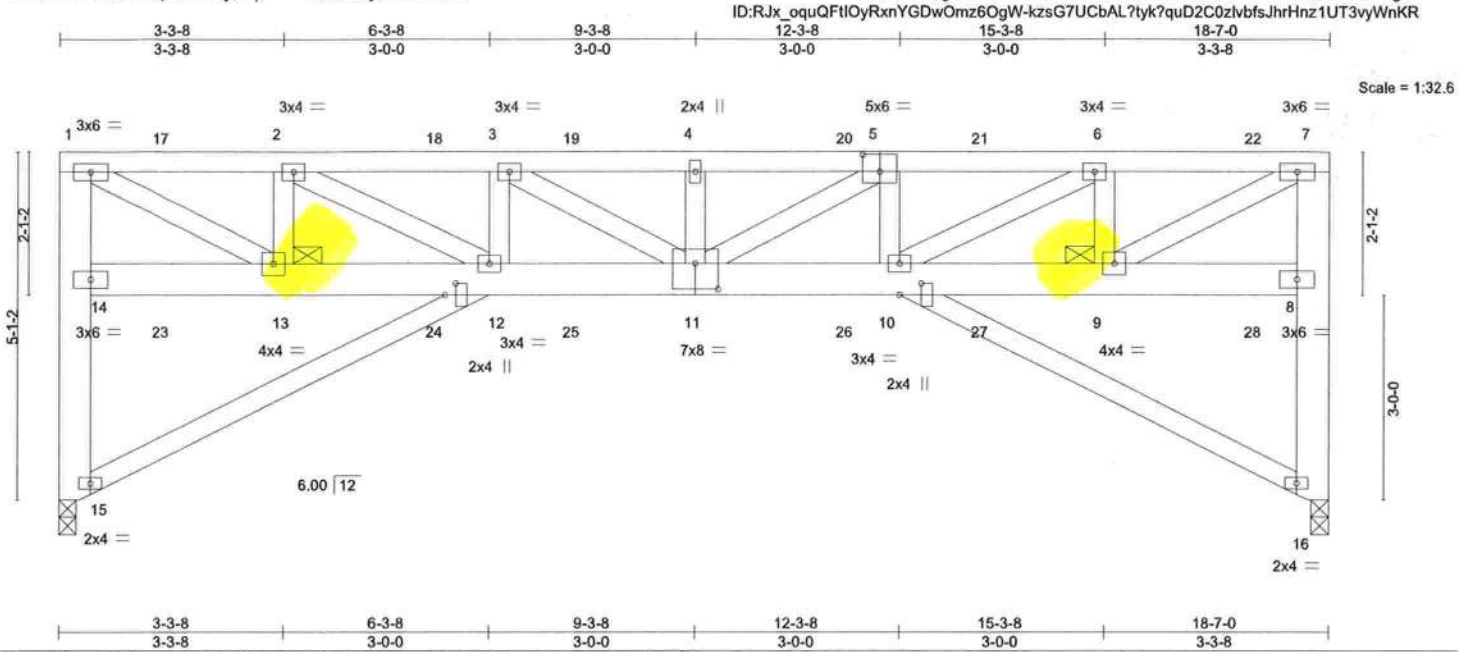

Plate Offsets (X,Y)-- [5:0-3-0,0-3-0], [10:0-2-0,0-3-15], [11:0-4-0,0-4-8], [12:0-2-0,0-1-15]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.21	Vert(LL)	-0.07	11	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.35	Vert(CT)	-0.14	11	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.43	Horz(CT)	0.14	16	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 148 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2 *Except*
12-15,10-16: 2x4 SP No.3
WEBS 2x4 SP No.3 *Except*
1-15,7-16: 2x6 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-4-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 13, 9

REACTIONS. (size) 15=0-3-0, 16=0-3-0
Max Uplift 15=-223(LC 4), 16=-226(LC 4)
Max Grav 15=691(LC 1), 16=694(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 14-15=-691/223, 1-14=-630/220, 1-2=-1028/333, 2-3=-1639/530, 3-4=-1798/581, 4-5=-1798/581, 5-6=-1632/526, 6-7=-1031/334, 8-16=-694/226, 7-8=-631/223
BOT CHORD 12-13=-333/1028, 11-12=-530/1639, 10-11=-537/1654, 9-10=-334/1031
WEBS 1-13=-360/1116, 2-13=-506/208, 2-12=-225/696, 3-12=-263/124, 5-10=-259/121, 6-10=-219/685, 6-9=-507/209, 7-9=-362/1119

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 15, 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=223, 16=226.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 62 lb down and 20 lb up at 1-6-4, 62 lb down and 20 lb up at 3-6-4, 62 lb down and 20 lb up at 5-6-4, 62 lb down and 20 lb up at 7-6-4, 62 lb down and 20 lb up at 9-6-4, 62 lb down and 20 lb up at 11-6-4, 62 lb down and 20 lb up at 13-6-4, and 62 lb down and 20 lb up at 15-6-4, and 60 lb down and 22 lb up at 17-6-4 on top chord, and 22 lb down at 1-6-4, 22 lb down at 3-6-4, 22 lb down at 5-6-4, 22 lb down at 7-6-4, 22 lb down at 9-6-4, 22 lb down at 11-6-4, 22 lb down at 13-6-4, and 22 lb down at 15-6-4, and 23 lb down at 17-6-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) 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

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Date:

October 5,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-7=-54, 12-14=-20, 10-12=-20, 8-10=-20
   Concentrated Loads (lb)
   Vert: 13=-3(F) 2=-2(F) 11=-3(F) 4=-2(F) 6=-2(F) 9=-3(F) 17=-2(F) 18=-2(F) 19=-2(F) 20=-2(F) 21=-2(F) 22=-3(F) 23=-3(F) 24=-3(F) 25=-3(F) 26=-3(F) 27=-3(F) 28=-5(F)

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	T42	Roof Special	1	1	T28917272
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:43 2022 Page 1
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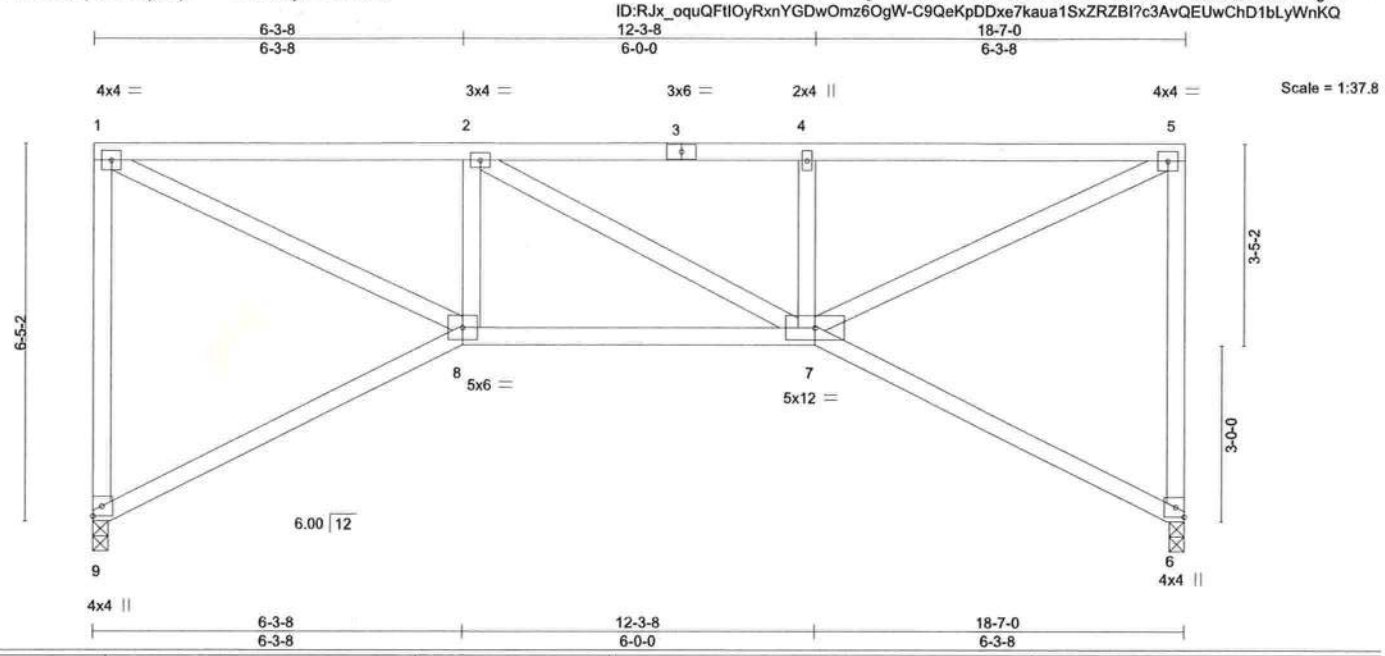

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.52	Vert(LL)	-0.07	8-9	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.39	Vert(CT)	-0.14	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.08	6	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 113 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-3-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 7-6-1 oc bracing.

REACTIONS. (size) 9=0-3-0, 6=0-3-0
Max Uplift 9=-183(LC 8), 6=-183(LC 8)
Max Grav 9=677(LC 1), 6=677(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-623/456, 1-2=-941/611, 2-4=-957/627, 4-5=-941/611, 5-6=-623/456
BOT CHORD 7-8=-627/957
WEBS 1-8=-677/1041, 2-8=-344/343, 4-7=-343/343, 5-7=-676/1040

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=183, 6=183.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	T43	Roof Special	1	1	T28917273
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:44 2022 Page 1
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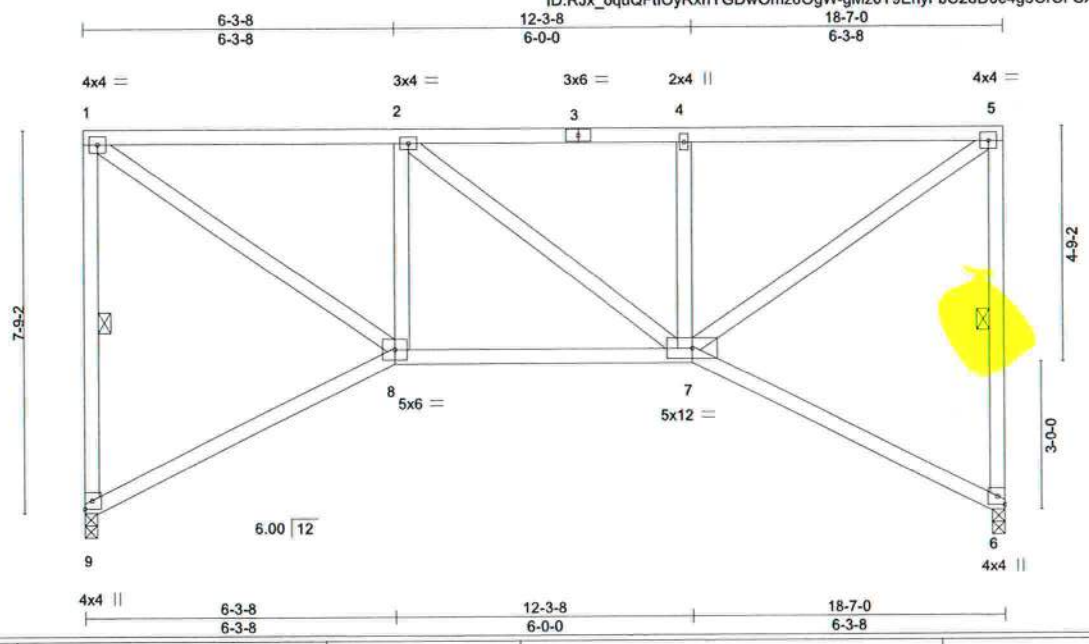

Scale = 1:44.8

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.39	Vert(LL)	-0.06	8-9	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.34	Vert(CT)	-0.13	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.05	6	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 124 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-11-1 oc bracing.
WEBS 1 Row at midpt 1-9, 5-6

REACTIONS. (size) 9=0-3-0, 6=0-3-0
Max Uplift 9=-183(LC 8), 6=-183(LC 8)
Max Grav 9=677(LC 1), 6=677(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-622/455, 1-2=-662/430, 2-4=-673/441, 4-5=-661/430, 5-6=-622/455
BOT CHORD 7-8=-441/673
WEBS 1-8=-524/805, 2-8=-345/345, 4-7=-345/344, 5-7=-523/805

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=183, 6=183.

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Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917274
3287790	T44	Roof Special	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:44 2022 Page 1
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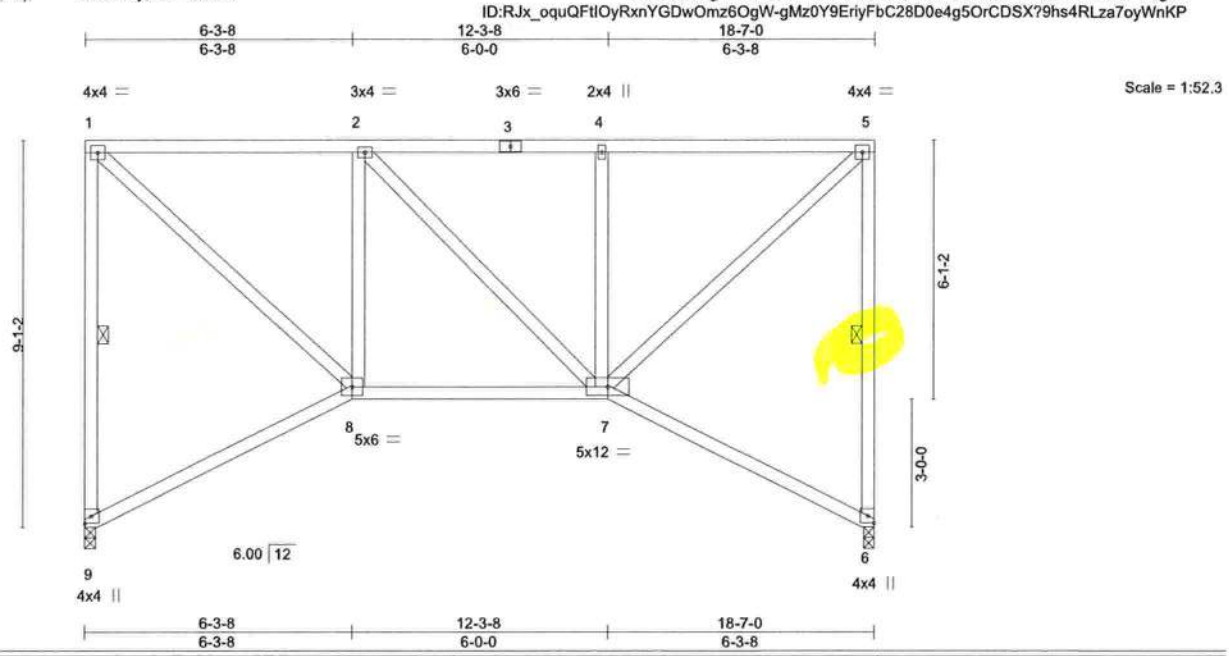

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LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.40	Vert(LL)	-0.06	8-9	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.34	Vert(CT)	-0.13	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.61	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 135 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-9, 5-6

REACTIONS. (size) 9=0-3-0, 6=0-3-0
Max Uplift 9=-183(LC 8), 6=-183(LC 8)
Max Grav 9=677(LC 1), 6=677(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-622/454, 1-2=-510/332, 2-4=-519/340, 4-5=-510/331, 5-6=-621/454
BOT CHORD 7-8=-340/519
WEBS 1-8=-449/691, 2-8=-346/345, 4-7=-346/345, 5-7=-449/690

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=183, 6=183.

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Date:

October 5,2022

MiTek
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Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917275
3287790	T45	Roof Special	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:45 2022 Page 1
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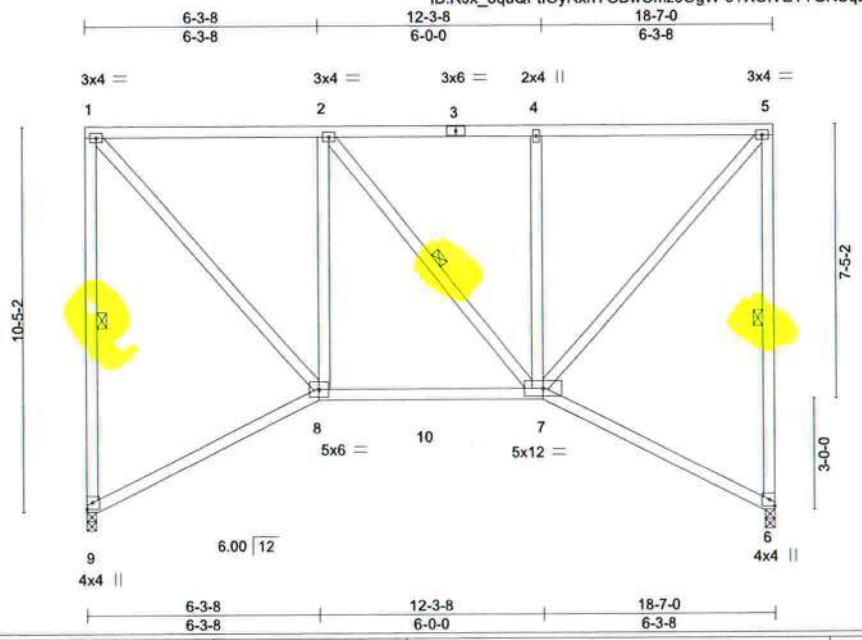

Scale = 1:59.9

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.40	Vert(LL)	-0.07	7-8	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.39	Vert(CT)	-0.13	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 148 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-9, 5-6, 2-7

REACTIONS. (size) 9=0-3-0, 6=0-3-0
Max Uplift 9=-183(LC 8), 6=-183(LC 8)
Max Grav 9=747(LC 2), 6=739(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-650/454, 1-2=-464/270, 2-4=-463/276, 4-5=-457/269, 5-6=-643/454
BOT CHORD 7-8=-277/469
WEBS 1-8=-407/700, 2-8=-347/346, 4-7=-346/345, 5-7=-407/689

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=183, 6=183.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917276
3287790	T46	Roof Special	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:46 2022 Page 1
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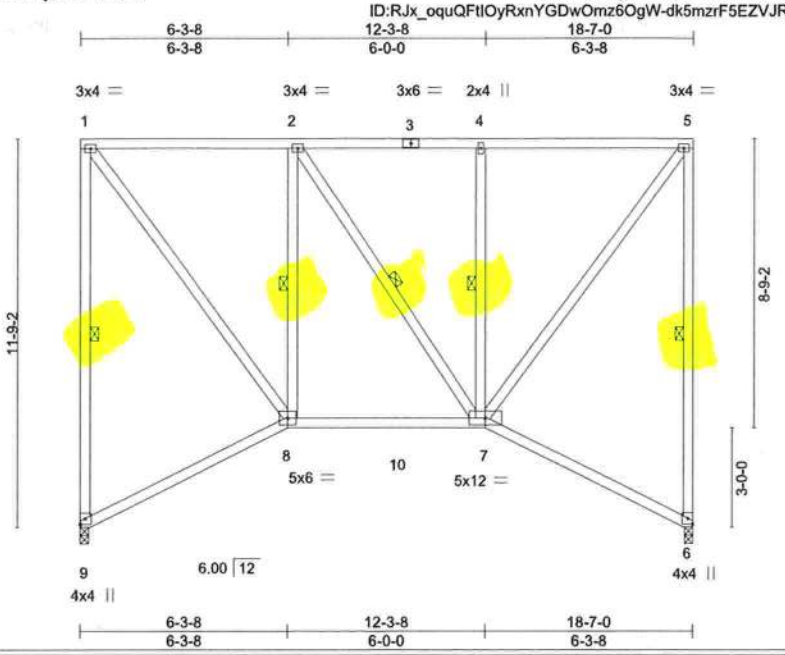

Scale = 1:67.4

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.47	Vert(LL)	-0.07	7-8	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.40	Vert(CT)	-0.13	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 160 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-9, 5-6, 2-8, 2-7, 4-7

REACTIONS. (size) 9=0-3-0, 6=0-3-0
Max Uplift 9=-183(LC 8), 6=-183(LC 8)
Max Grav 9=750(LC 2), 6=743(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-654/453, 1-2=-394/227, 2-4=-393/233, 4-5=-388/227, 5-6=-646/453
BOT CHORD 7-8=-233/398
WEBS 1-8=-382/660, 2-8=-348/347, 4-7=-347/346, 5-7=-381/650

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=183, 6=183.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

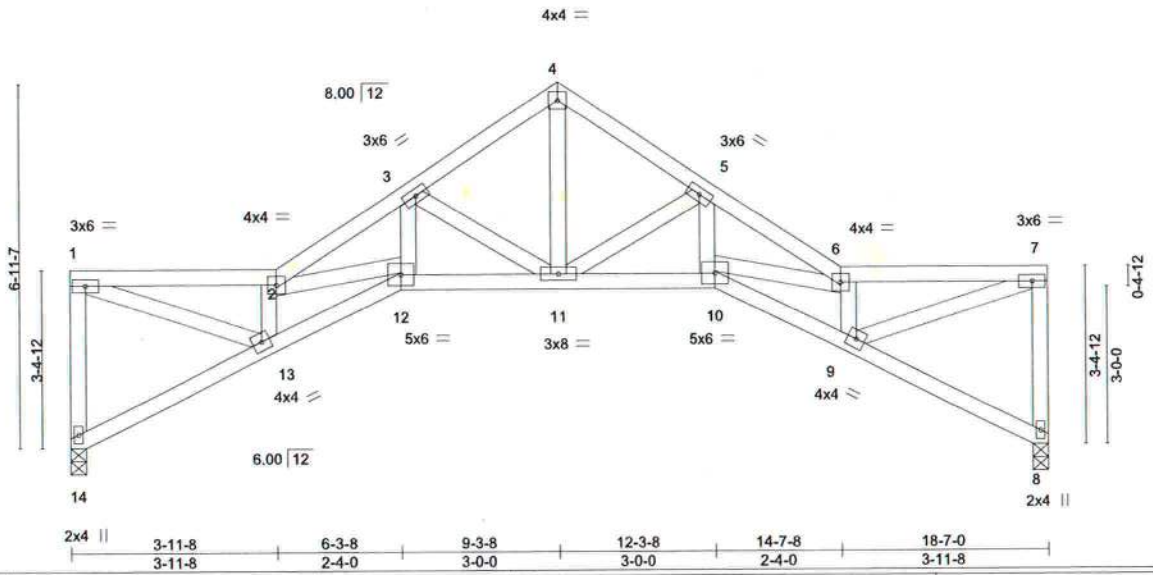
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.	T28917277
3287790	T47	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:48 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-5xf9ABGj?tdA3VtohmdNj1TlDgXxM2yW7JBEk6yWnKM

3-11-8	6-3-8	9-3-8	12-3-8	14-7-8	18-7-0
3-11-8	2-4-0	3-0-0	3-0-0	2-4-0	3-11-8

Scale = 1:42.2



3-11-8	6-3-8	9-3-8	12-3-8	14-7-8	18-7-0
3-11-8	2-4-0	3-0-0	3-0-0	2-4-0	3-11-8

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.22	Vert(LL)	-0.11	11	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.45	Vert(CT)	-0.21	10-11	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.24	8	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 109 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-0-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-6-15 oc bracing.

REACTIONS. (size) 14=0-3-8, 8=0-3-8
Max Horz 14=78(LC 9)
Max Uplift 14=-135(LC 12), 8=-135(LC 13)
Max Grav 14=677(LC 1), 8=677(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-14=-638/169, 1-2=-1476/334, 2-3=-2038/461, 3-4=-1073/237, 4-5=-1073/246, 5-6=-2038/399, 6-7=-1476/273, 7-8=-638/144
BOT CHORD 12-13=-476/1810, 11-12=-391/1610, 10-11=-297/1610, 9-10=-342/1810
WEBS 1-13=-350/1551, 2-13=-1273/329, 3-12=-197/838, 3-11=-866/282, 4-11=-205/985, 5-11=-866/228, 5-10=-136/838, 6-9=-1273/273, 7-9=-286/1551

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 9-3-8, Exterior(2R) 9-3-8 to 12-1-12, Interior(1) 12-1-12 to 18-5-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Bearing at joint(s) 14, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=135, 8=135.

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Philip J. O'Regan PE No.58126
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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917278
3287790	T48	Roof Special	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:49 2022 Page 1
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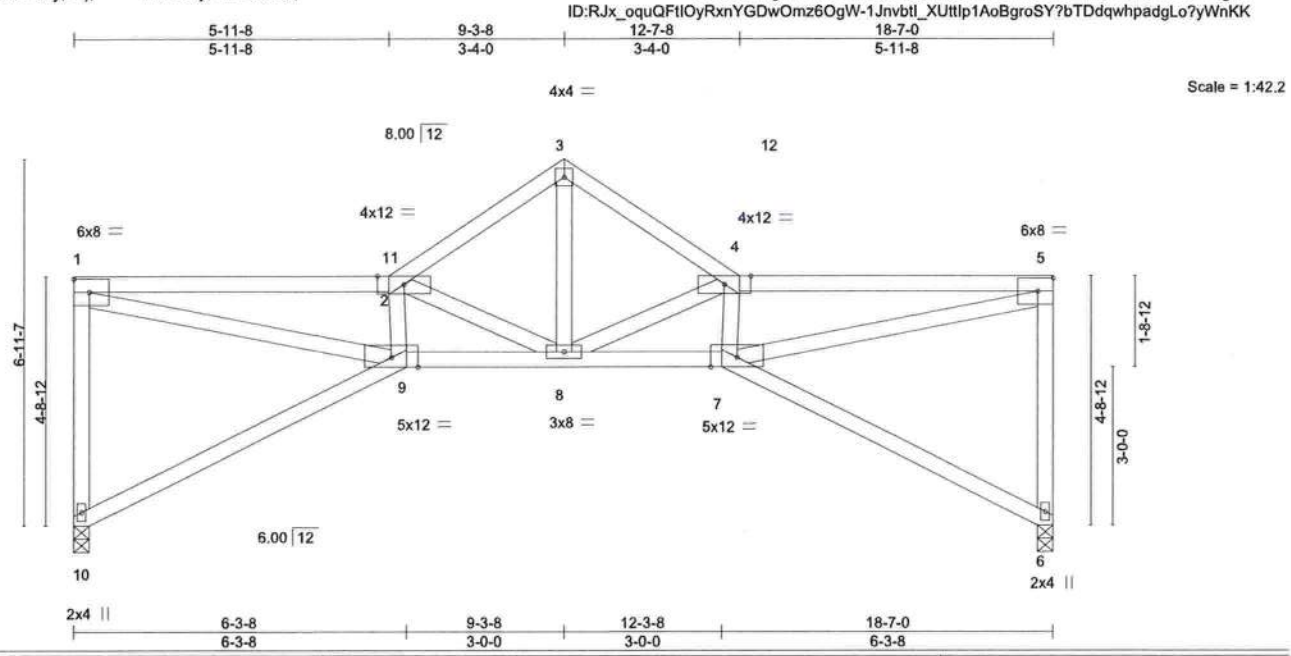

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.61	Vert(LL)	-0.15	8-9	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.43	Vert(CT)	-0.27	8-9	>823	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.28	6	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 109 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-2-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-11-7 oc bracing.

REACTIONS. (size) 10=0-3-8, 6=0-3-8
Max Horz 10=-48(LC 10)
Max Uplift 10=-139(LC 12), 6=-139(LC 13)
Max Grav 10=677(LC 1), 6=677(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-10=-621/174, 1-2=-1988/431, 2-3=-1090/227, 3-4=-1090/234, 4-5=-1988/388, 5-6=-621/158
BOT CHORD 8-9=-436/1902, 7-8=-359/1902
WEBS 1-9=-437/2014, 2-9=-379/128, 2-8=-1126/298, 3-8=-176/968, 4-8=-1126/255, 4-7=-379/128, 5-7=-394/2014

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 9-3-8, Exterior(2R) 9-3-8 to 12-3-8, Interior(1) 12-3-8 to 18-5-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Bearing at joint(s) 10, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=139, 6=139.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.	T28917279
3287790	T49	ROOF SPECIAL	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:49 2022 Page 1
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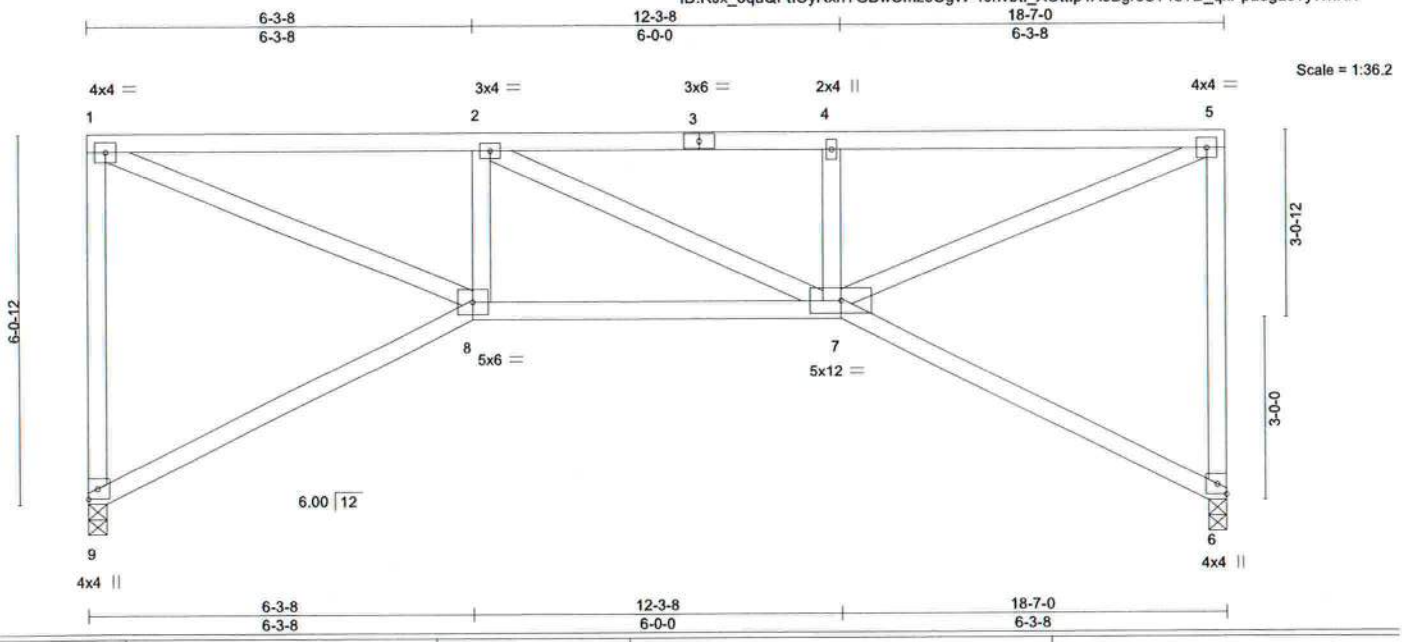

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.47	Vert(LL)	-0.07	8-9	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.41	Vert(CT)	-0.14	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.10	6	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 110 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-10-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 7-0-12 oc bracing.

REACTIONS. (size) 9=0-3-8, 6=0-3-8
Max Uplift 9=-183(LC 8), 6=-183(LC 8)
Max Grav 9=677(LC 1), 6=677(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-623/456, 1-2=-1063/690, 2-4=-1080/708, 4-5=-1062/690, 5-6=-623/456
BOT CHORD 7-8=-709/1081
WEBS 1-8=-747/1149, 2-8=-343/343, 4-7=-343/343, 5-7=-747/1148

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=183, 6=183.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917280
3287790	T50	ROOF SPECIAL	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:50 2022 Page 1
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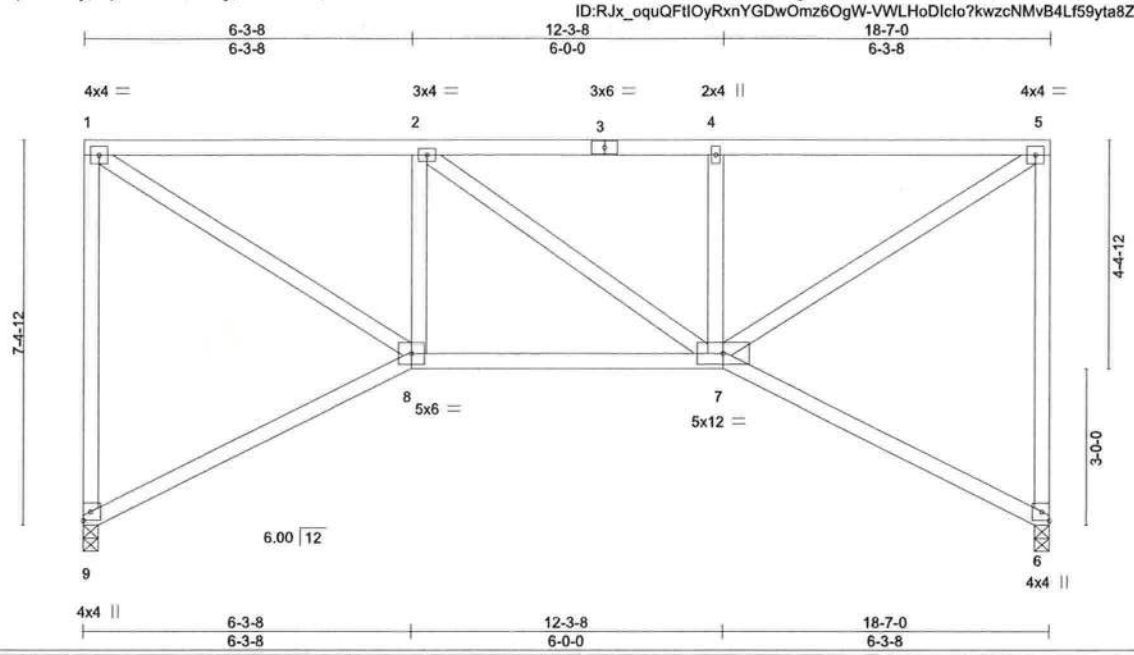

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.70	Vert(LL)	-0.06	8-9	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.35	Vert(CT)	-0.13	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.06	6	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 121 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-6-11 oc bracing.

REACTIONS. (size) 9=0-3-8, 6=0-3-8
Max Uplift 9=-183(LC 8), 6=-183(LC 8)
Max Grav 9=677(LC 1), 6=677(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-622/455, 1-2=-720/468, 2-4=-732/480, 4-5=-720/467, 5-6=-622/455
BOT CHORD 7-8=-480/732
WEBS 1-8=-554/852, 2-8=-345/344, 4-7=-345/344, 5-7=-554/852

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=183, 6=183.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	T51	ROOF SPECIAL	1	1	T28917281
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:51 2022 Page 1
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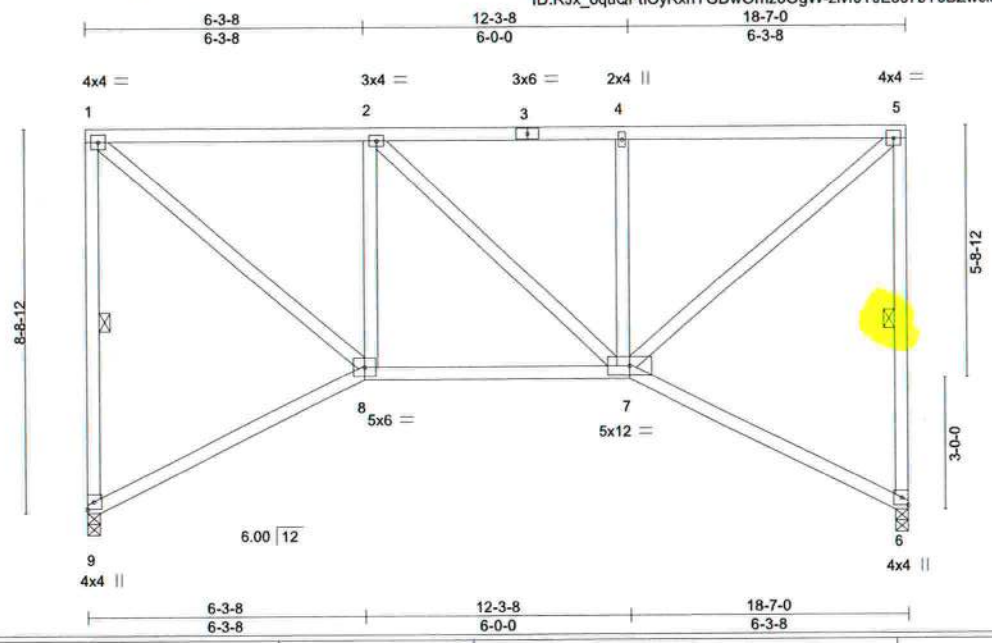

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LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.40	Vert(LL)	-0.06	8-9	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.34	Vert(CT)	-0.13	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 132 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-9-15 oc bracing.
WEBS 1 Row at midpt 1-9, 5-6

REACTIONS. (size) 9=0-3-8, 6=0-3-8
Max Uplift 9=-183(LC 8), 6=-183(LC 8)
Max Grav 9=677(LC 1), 6=677(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-622/454, 1-2=-544/354, 2-4=-553/362, 4-5=-544/353, 5-6=-622/454
BOT CHORD 7-8=-363/553
WEBS 1-8=-465/715, 2-8=-346/345, 4-7=-346/345, 5-7=-465/715

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=183, 6=183.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917282
3287790	T52	ROOF SPECIAL	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:52 2022 Page 1
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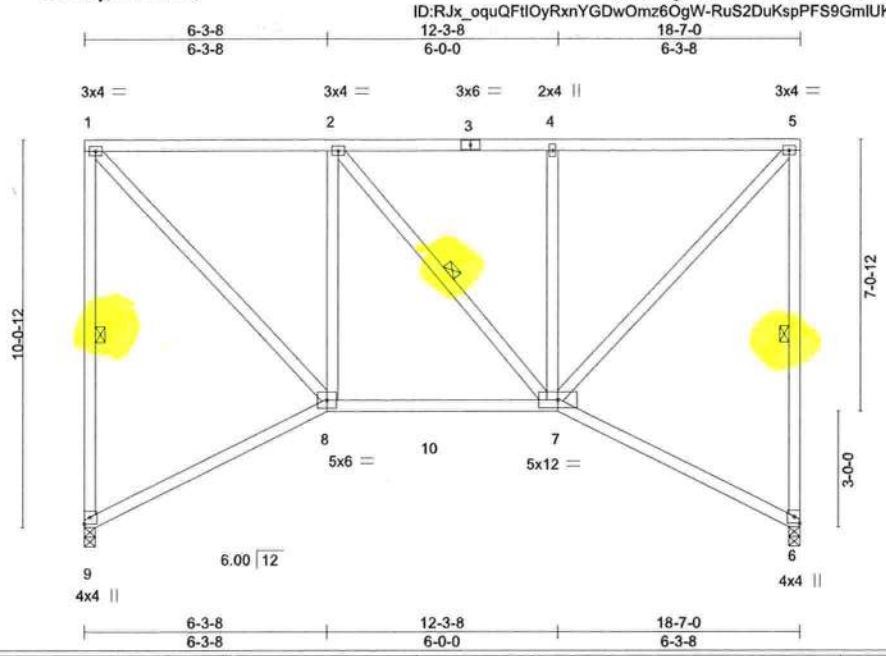

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LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.40	Vert(LL)	-0.06	7-8	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.38	Vert(CT)	-0.13	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.67	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 144 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-9, 5-6, 2-7

REACTIONS. (size) 9=0-3-8, 6=0-3-8
Max Uplift 9=-183(LC 8), 6=-183(LC 8)
Max Grav 9=746(LC 2), 6=738(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-649/454, 1-2=-487/284, 2-4=-486/291, 4-5=-480/284, 5-6=-641/454
BOT CHORD 7-8=-292/493
WEBS 1-8=-417/714, 2-8=-347/346, 4-7=-346/345, 5-7=-416/703

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=183, 6=183.

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Date:

October 5,2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	T53	ROOF SPECIAL	1	1	T28917283
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:53 2022 Page 1
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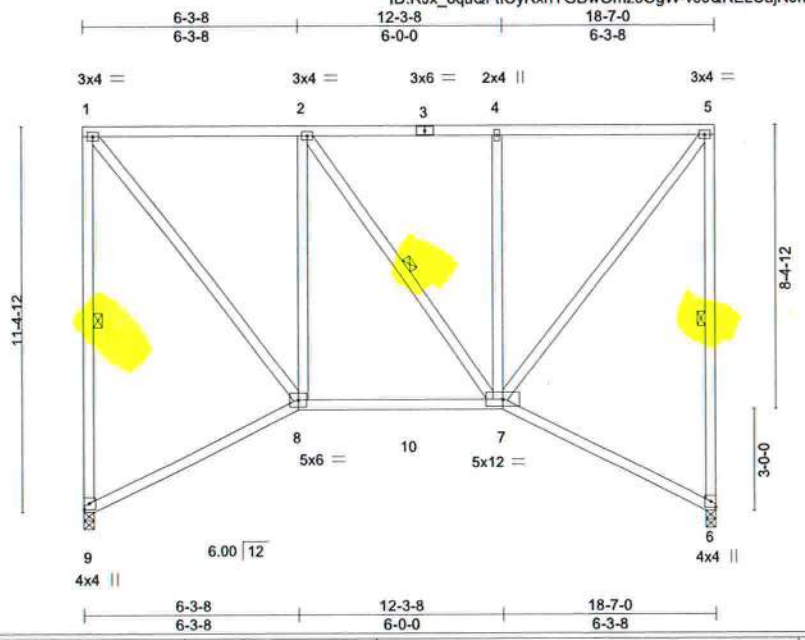

Scale = 1:65.3

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.44	Vert(LL)	-0.07	7-8	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.40	Vert(CT)	-0.13	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 157 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-9, 5-6, 2-7

REACTIONS. (size) 9=0-3-8, 6=0-3-8
Max Uplift 9=-183(LC 8), 6=-183(LC 8)
Max Grav 9=749(LC 2), 6=742(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-653/453, 1-2=-411/238, 2-4=-409/243, 4-5=-404/237, 5-6=-645/453
BOT CHORD 7-8=-244/415
WEBS 1-8=-388/669, 2-8=-347/346, 4-7=-347/346, 5-7=-387/659

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=183, 6=183.

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Date:

October 5,2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917284
3287790	V01	GABLE	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:53 2022 Page 1
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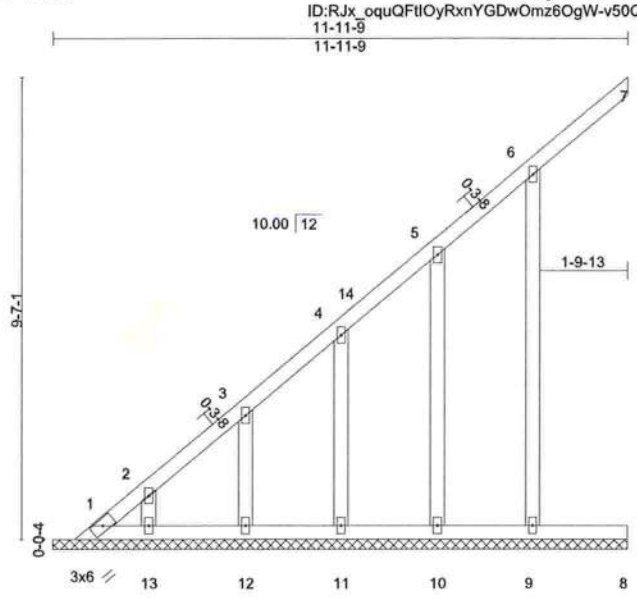

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	-0.00	7	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-S							Weight: 69 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

REACTIONS. All bearings 11-11-9.
(lb) - Max Horz 1=271(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 13, 12, 11, 10, 9
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 8, 13, 12, 11, 10, 9

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-427/201, 2-3=-368/172, 3-4=-294/135

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.

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.

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-10-5 to 4-0-0, Interior(1) 4-0-0 to 11-11-9 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 13, 12, 11, 10, 9.

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Date:

October 5,2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	V02	Valley	1	1	T28917285
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:54 2022 Page 1
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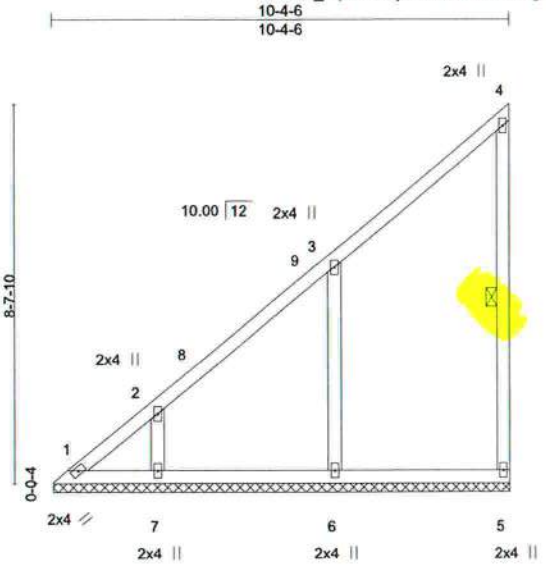

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.17	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-S							Weight: 56 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-5

REACTIONS. All bearings 10-4-1.
(lb) - Max Horz 1=245(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 6=-145(LC 12), 7=-153(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=457(LC 19), 7=307(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-393/188, 2-3=-282/131
WEBS 3-6=-265/270

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 10-2-10 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 6=145, 7=153.

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October 5,2022

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Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917286
3287790	V03	Valley	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:55 2022 Page 1
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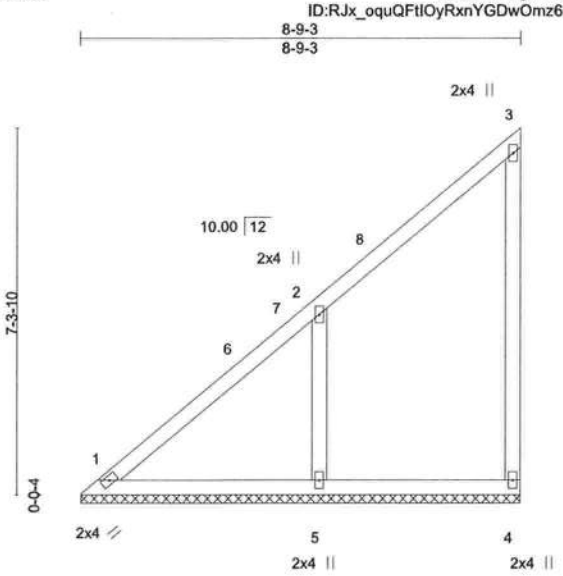

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.20	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-S							Weight: 44 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

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

REACTIONS. (size) 1=8-8-14, 4=8-8-14, 5=8-8-14
Max Horz 1=213(LC 12)
Max Uplift 4=-38(LC 14), 5=-203(LC 12)
Max Grav 1=170(LC 21), 4=161(LC 19), 5=513(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-317/152
WEBS 2-5=-296/317

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 8-7-7 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=203.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
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Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917287
3287790	V04	Valley	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:56 2022 Page 1
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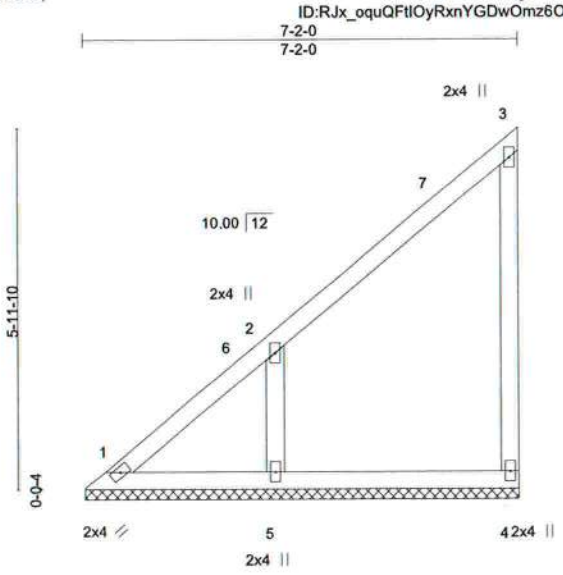


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-S							Weight: 35 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

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

REACTIONS. (size) 1=7-1-11, 4=7-1-11, 5=7-1-11
Max Horz 1=181(LC 12)
Max Uplift 1=-5(LC 10), 4=-56(LC 12), 5=-174(LC 12)
Max Grav 1=109(LC 21), 4=129(LC 19), 5=324(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-309/139
WEBS 2-5=-241/303

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-13 to 3-2-0, Interior(1) 3-2-0 to 7-0-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4 except (jt=lb) 5=174.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

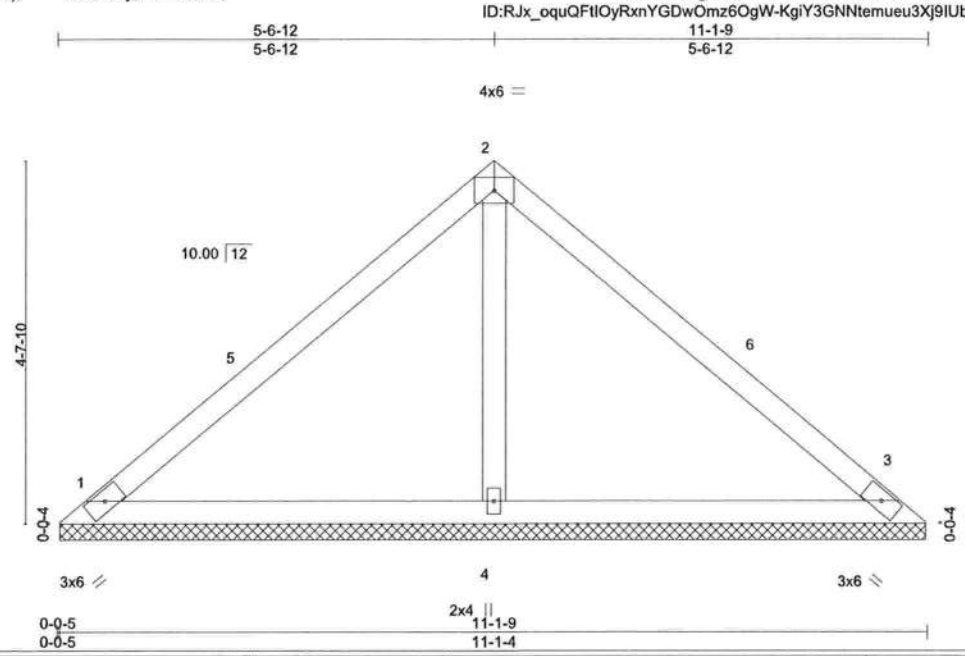
Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.
3287790	V05	Valley	1	1	T28917288
					Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:56 2022 Page 1
ID:RJx_oquQFtlOyRxnYGDwOmz6OgW-KgiY3GNNtemueu3Xj9IUbwKGIleyzFArBDtDY5yWnKD



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.26	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-S							Weight: 42 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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

REACTIONS. (size) 1=11-0-15, 3=11-0-15, 4=11-0-15
Max Horz 1=-95(LC 8)
Max Uplift 1=-48(LC 13), 3=-60(LC 13), 4=-46(LC 12)
Max Grav 1=201(LC 1), 3=201(LC 1), 4=362(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 5-6-12, Exterior(2R) 5-6-12 to 8-6-12, Interior(1) 8-6-12 to 10-8-11 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES.	T28917289
3287790	V06	Valley	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:57 2022 Page 1
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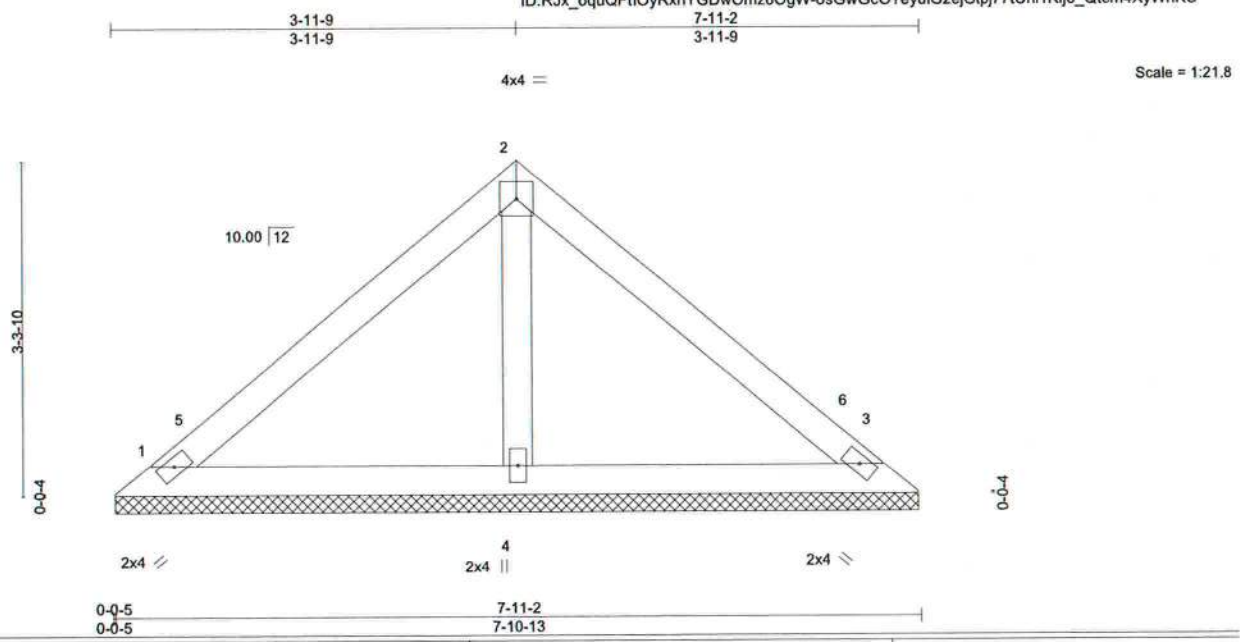

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.13	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-S							Weight: 30 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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

REACTIONS. (size) 1=7-10-9, 3=7-10-9, 4=7-10-9
Max Horz 1=-65(LC 10)
Max Uplift 1=-33(LC 13), 3=-41(LC 13), 4=-32(LC 12)
Max Grav 1=139(LC 1), 3=139(LC 1), 4=250(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 3-11-9, Exterior(2R) 3-11-9 to 6-11-9, Interior(1) 6-11-9 to 7-6-5 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

October 5,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY BROTHERS - MAHN RES. T28917290
3287790	V07	Valley	1	1	Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Tue Oct 4 13:26:58 2022 Page 1
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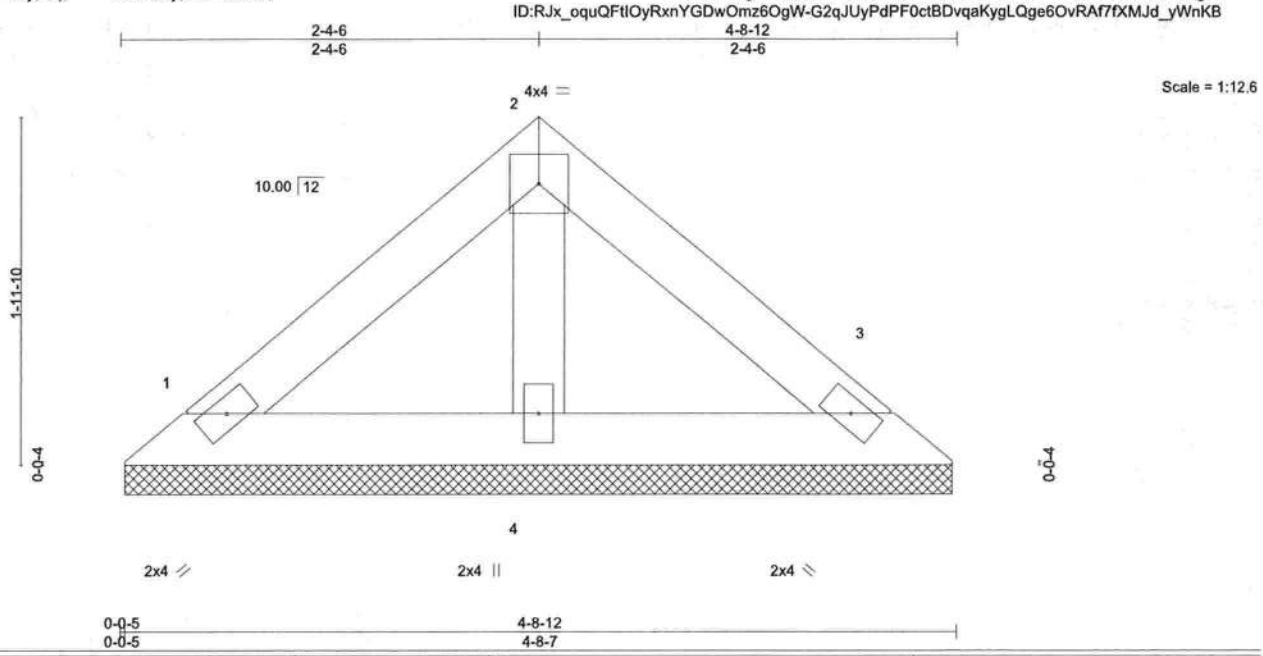

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-P							Weight: 17 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-8-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-8-2, 3=4-8-2, 4=4-8-2
Max Horz 1=-36(LC 8)
Max Uplift 1=-23(LC 13), 3=-28(LC 13), 4=-8(LC 12)
Max Grav 1=82(LC 1), 3=82(LC 1), 4=125(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.

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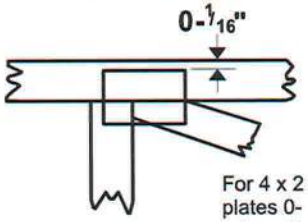
Symbols

PLATE LOCATION AND ORIENTATION

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



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

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

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

PLATE SIZE

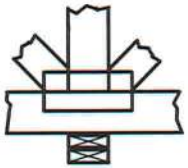
4 x 4

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

LATERAL BRACING LOCATION

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

BEARING

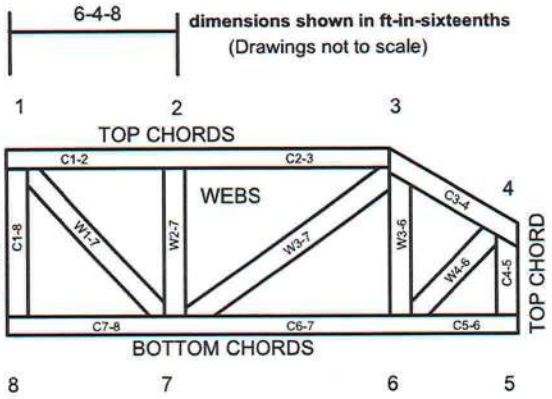


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

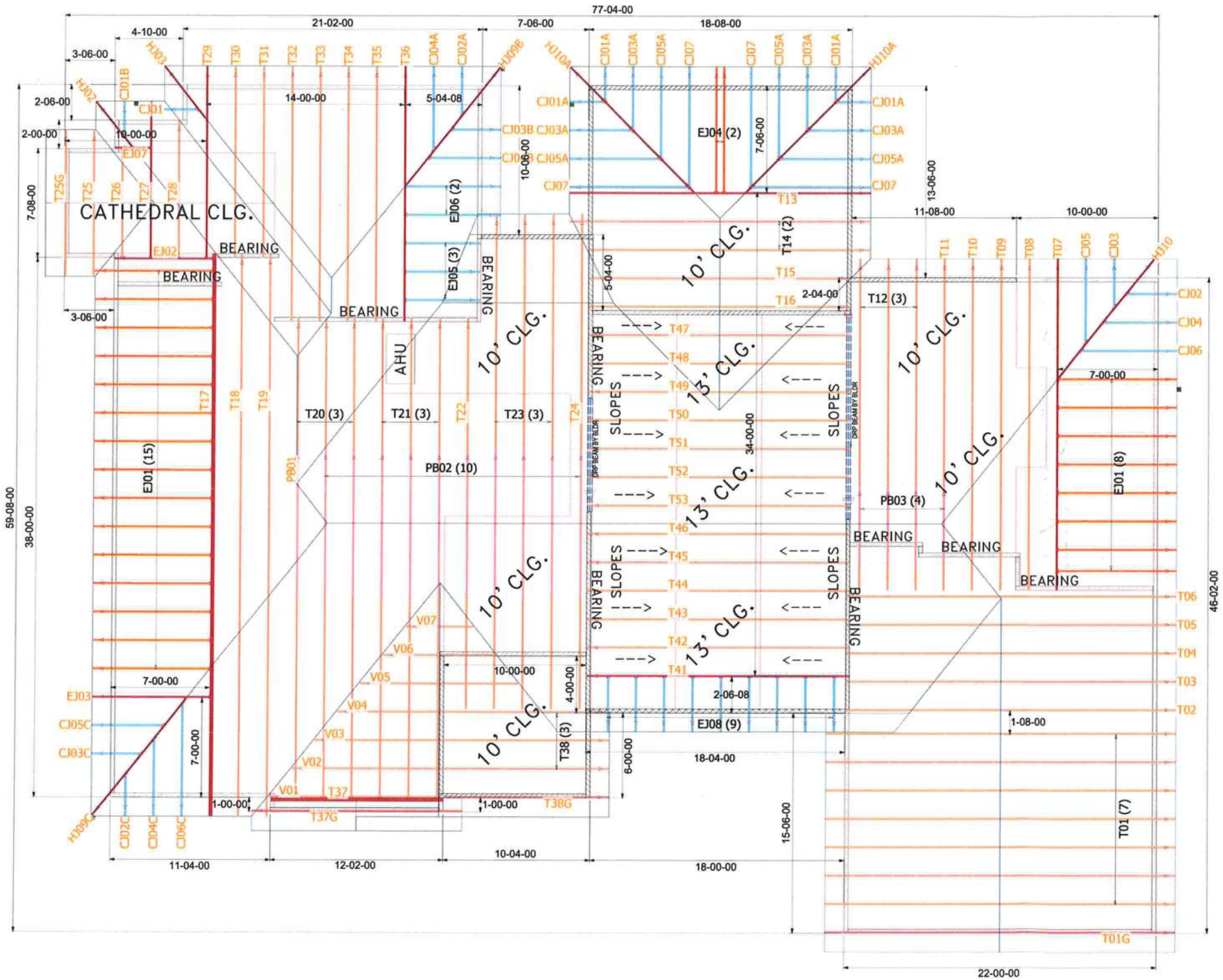
MiTek

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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



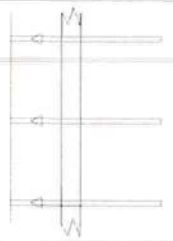
8/12 PITCH
10/12 PITCH
16" O/H

Hatch Legend

- 9' 1-1/8"
- 10' 1-1/8"
- 13' 1-1/8"

MITEK PLATE APPROVAL #'S 2197.2–2197.4, BOISE EWP PRODUCT #'S LVL FL1644–R2, BCI JOISTS FL1392–R2

THE ARROW HEAD AT THE END OF THE TRUSS ON THE TRUSS PLACEMENT PLAN (LAYOUT) CORRESPONDS WITH THE LEFT SIDE OF THE INDIVIDUAL TRUSS DRAWING. USE THIS AS AN ORIENTATION GUIDE WHEN SETTING THE TRUSSES ON THE STRUCTURE.



General Notes:

- Per ANSI/TPI 1-2002 all " Truss to Wall" connections are the responsibility of the Building Designer, not the Truss Manufacturer.
- Use Manufacturer's specifications for all hanger connections unless noted otherwise.
- Trusses are to be 24" o.c. U.N.O.
- All hangers are to be Simpson or equivalent U.N.O.- Use 10d x 1 1/2" Nails in hanger connections to single ply girder trusses.
- Trusses are not designed to support brick U.N.O.
- Dimensions are Feet-Inches- Sixteenths

Notes:

No back charges will be accepted by Builders FirstSource unless approved in writing first. 850-835-4541

ACQ lumber is corrisive to truss plates. Any ACQ lumber that comes in contact with truss plates (i.e. scabbed on tails) must have an approved barrier applied first.

Refer to BCSI-B1 Summary Sheet-Guide for handling, Installing and Bracing of Metal Plate Connected Wood Truss prior to and during truss installation.

It is the responsibility of the Contractor to ensure of the proper orientation of the truss placement plans as to the construction documents and field conditions of the structure orientation. If a reversed or flipped layout is required, it will be supplied at no extra cost by Builders FirstSource.

It is the responsibility of the Contractor to make sure the placement of trusses are adjusted for plumbing drops. can lights, ect..., so the trusses do not interfere with these type of items.

All common framed roof or floor systems must be designed as to NOT impose any loads on the floor trusses below. The floor trusses have not been designed to carry any additional loads from above.

This truss placement plan was not created by an engineer, but rather by the Builders FirstSource staff and is solely to be used as an installation guide and does not require a seal. Complete truss engineering and analysis can be found on the truss design drawings which may be sealed by the truss design engineer.

Gable end trusses require continuous bottom chord bearing. Refer to local codes for wall framing requirements.

Although all attempts have been made to do so, trusses may not be designed symmetrically. Please refer to the individual truss drawings and truss placement plans for proper orientation and placement.

Builders FIRSTSOURCE

Lake City
PHONE: 386-755-6894
FAX: 386-755-7973

Jacksonville
PHONE: 904-772-6100
FAX: 904-772-1973

Tallahassee
PHONE: 850-576-5177

Builder:
HARTLEY BROTHERS

Legal Address:
Mahn Res.

Model:
Oakland II Modified

Date:	Drawn By:	Original Ref #:
9-12-22	KLH	3287790
Floor 1 Job#	Floor 2 Job#:	Roof Job #:
N/A	N/A	3287790

TRUSS LAYOUT