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

RE: P220296-P220296-02 - Roof - 2217 NW Killarney Ln, Lee's Summit, MO

Site Information:

Project Customer: Summit Homes Project Name:
Lot/Block: 197 Subdivision: Woodside Ridge
Model: Pikewood - Craftsman
Address: 2217 NW Killarney Ln
City: Lee's Summit State: MO

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

Design Code: IRC2018/TPI2014
Design Program: MiTek 20/20 8.5
Wind Code: ASCE 7-16 Wind Speed: 115 mph
Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-16
Roof Load: 45.0 psf
Floor Load: N/A psf

Mean Roof Height (feet): 35
Exposure Category: C

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I52488884	A1	6/14/22	35	I52488918	H1	6/14/22
2	I52488885	A2	6/14/22	36	I52488919	H2	6/14/22
3	I52488886	A3	6/14/22	37	I52488920	H3	6/14/22
4	I52488887	A4	6/14/22	38	I52488921	H4	6/14/22
5	I52488888	A5	6/14/22	39	I52488922	J1	6/14/22
6	I52488889	A6	6/14/22	40	I52488923	J2	6/14/22
7	I52488890	A7	6/14/22	41	I52488924	J3	6/14/22
8	I52488891	A8	6/14/22	42	I52488925	J4	6/14/22
9	I52488892	B1	6/14/22	43	I52488926	J5	6/14/22
10	I52488893	B2	6/14/22	44	I52488927	J7	6/14/22
11	I52488894	B3	6/14/22	45	I52488928	J8	6/14/22
12	I52488895	B4	6/14/22	46	I52488929	J9	6/14/22
13	I52488896	B5	6/14/22	47	I52488930	J10	6/14/22
14	I52488897	C1	6/14/22	48	I52488931	J11	6/14/22
15	I52488898	C2	6/14/22	49	I52488932	J12	6/14/22
16	I52488899	C3	6/14/22	50	I52488933	J13	6/14/22
17	I52488900	C4	6/14/22	51	I52488934	J14	6/14/22
18	I52488901	D1	6/14/22	52	I52488935	J15	6/14/22
19	I52488902	D2	6/14/22	53	I52488936	J16	6/14/22
20	I52488903	D3	6/14/22	54	I52488937	J17	6/14/22
21	I52488904	D4	6/14/22	55	I52488938	J18	6/14/22
22	I52488905	D5	6/14/22	56	I52488939	J19	6/14/22
23	I52488906	D6	6/14/22	57	I52488940	J20	6/14/22
24	I52488907	D7	6/14/22	58	I52488941	J21	6/14/22
25	I52488908	D8	6/14/22	59	I52488942	LAY1	6/14/22
26	I52488909	E1	6/14/22	60	I52488943	LAY2	6/14/22
27	I52488910	E2	6/14/22	61	I52488944	LAY3	6/14/22
28	I52488911	E3	6/14/22	62	I52488945	LAY4	6/14/22
29	I52488912	E4	6/14/22	63	I52488946	LAY5	6/14/22
30	I52488913	E5	6/14/22	64	I52488947	LAY6	6/14/22
31	I52488914	G1	6/14/22	65	I52488948	LAY7	6/14/22
32	I52488915	G2	6/14/22	66	I52488949	LAY8	6/14/22
33	I52488916	G3	6/14/22	67	I52488950	V1	6/14/22
34	I52488917	G4	6/14/22	68	I52488951	V2	6/14/22

The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Premier Building Supply (Springhill, KS)20300 W 207th Street.

Truss Design Engineer's Name: Sevier, Scott
My license renewal date for the state of Missouri is December 31, 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.

June 14,2022
Sevier, Scott

RE: P220296-P220296-02 - Roof - 2217 NW Killarney Ln, Lee's Summit, MO

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

No.	Seal#	Truss Name	Date
69	I52488952	V3	6/14/22
70	I52488953	V4	6/14/22
71	I52488954	V5	6/14/22
72	I52488955	V6	6/14/22
73	I52488956	V7	6/14/22
74	I52488957	V8	6/14/22
75	I52488958	V9	6/14/22
76	I52488959	V10	6/14/22

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	A1	Hip Girder	1	1	I52488884

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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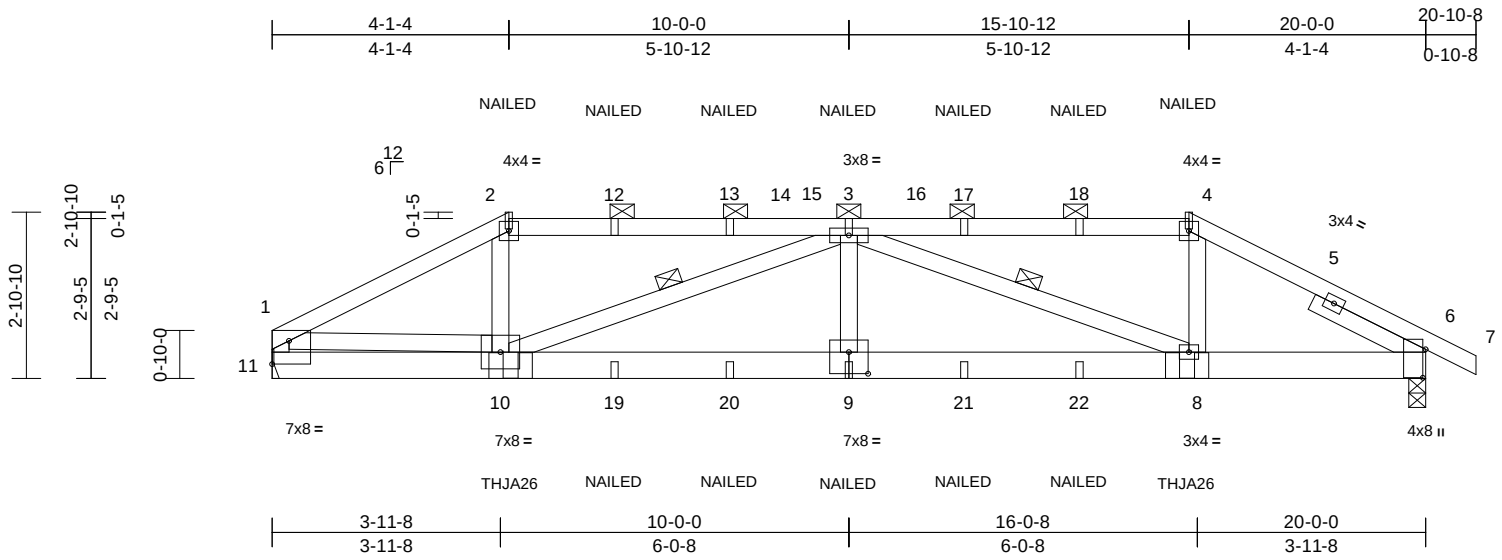

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Plate Offsets (X, Y): [6:0-5-15,0-0-9], [9:0-4-0,0-4-8], [11:Edge,0-4-13]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.13	9	>999	240	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.23	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.75	Horz(CT)	0.05	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 97 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 1650F 1.5E *Except* 1-2:2x4 SP No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x4 SPF No.3 *Except* 11-1:2x4 SP No.2
SLIDER Right 2x4 SP No.2 -- 2-1-13

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-3-7 oc purlins, except end verticals, and 2-0-0 oc purlins (4-2-13 max.): 2-4.
BOT CHORD Rigid ceiling directly applied or 7-11-2 oc bracing.
WEBS 1 Row at midpt 3-10, 3-8

REACTIONS (lb/size) 6=1342/0-3-8, 11=1309/ Mechanical
Max Horiz 11=-49 (LC 12)
Max Uplift 6=-352 (LC 17), 11=-331 (LC 16)
Max Grav 6=1423 (LC 41), 11=1365 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2250/643, 2-3=-1972/611, 3-4=-1971/614, 4-6=-2326/667, 6-7=0/0, 1-11=-1298/393
BOT CHORD 10-11=-140/396, 8-10=-864/3214, 6-8=-508/2014
WEBS 2-10=-59/607, 4-8=-103/772, 1-10=-413/1699, 3-10=-1340/427, 3-8=-1341/429, 3-9=0/308

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 4-1-4, Exterior(2R) 4-1-4 to 11-2-2, Interior (1) 11-2-2 to 15-10-12, Exterior(2E) 15-10-12 to 20-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 331 lb uplift at joint 11.
11) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
14) Use Simpson Strong-Tie THJA26 (THJA26 on 1 ply, Left Hand Hip) or equivalent at 4-1-10 from the left end to connect truss(es) to front face of bottom chord.
15) Use Simpson Strong-Tie THJA26 (THJA26 on 1 ply, Right Hand Hip) or equivalent at 15-10-6 from the left end to connect truss(es) to front face of bottom chord.
16) Fill all nail holes where hanger is in contact with lumber.
17) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
18) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-48, 2-4=-58, 4-7=-48, 6-11=-20
Concentrated Loads (lb)

June 14,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	A1	Hip Girder	1	1	Job Reference (optional) I52488884

Vert: 2=-79 (F), 4=-79 (F), 10=-241 (F), 8=-241 (F), 3=-74 (F), 9=-28 (F), 12=-74 (F), 13=-74 (F), 17=-74 (F), 18=-74 (F), 19=-28 (F), 20=-28 (F), 21=-28 (F), 22=-28 (F)

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	A2	Roof Special Girder	1	1	Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
I52488885
06/21/2022

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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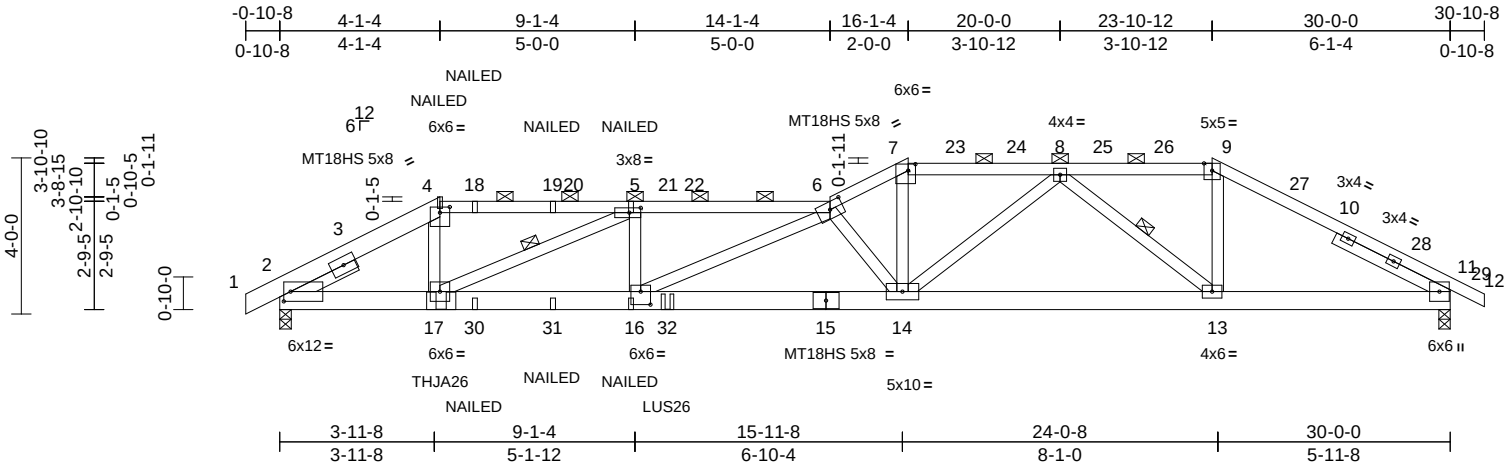

Scale = 1:59.1

Plate Offsets (X, Y): [2:0-2-1,0-3-0], [4:0-3-0,0-1-12], [5:0-3-8,0-1-8], [6:0-4-0,0-2-5], [7:0-2-4,0-2-0], [11:0-3-9,0-0-5], [16:0-3-0,0-4-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.38	14-16	>955	240	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.66	14-16	>541	180	MT18HS	197/144
TCDL	10.0	Rep Stress Incr	NO	WB	0.98	Horz(CT)	0.10	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 168 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E *Except* 1-4:2x6 SPF No.2, 6-7,7-9:2x4 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.3
SLIDER Left 2x4 SP No.2 -- 1-9-14, Right 2x4 SP No.2 -- 3-3-4

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-3-11 oc purlins, except 2-0-0 oc purlins (2-4-13 max.): 4-6, 7-9.
BOT CHORD Rigid ceiling directly applied or 8-4-2 oc bracing.
WEBS 1 Row at midpt 5-17, 8-13

REACTIONS (lb/size) 2=2249/0-3-8, 11=1529/0-3-8
Max Horiz 2=68 (LC 16)
Max Uplift 2=-597 (LC 16), 11=-287 (LC 12)
Max Grav 2=2415 (LC 2), 11=1776 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/8, 2-4=-4141/1073, 4-5=-3478/947, 5-6=-6730/1700, 6-7=-5214/1253, 7-8=-4581/1119, 8-9=-2482/642, 9-11=-2994/681, 11-12=0/0
BOT CHORD 2-17=-870/3581, 16-17=-1579/6728, 14-16=-1470/6569, 13-14=-823/3795, 11-13=-496/2526
WEBS 4-17=-298/1704, 5-17=-3585/830, 6-14=-3141/806, 7-14=-474/2193, 8-14=-276/1061, 8-13=-1811/444, 9-13=-184/1170, 5-16=-91/916, 6-16=-551/511

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-4, Exterior(2R) 4-1-4 to 9-1-4, Interior (1) 9-1-4 to 16-1-4, Exterior(2R) 16-1-4 to 21-1-4, Interior (1) 21-1-4 to 23-10-12, Exterior(2R) 23-10-12 to 28-10-12, Interior (1) 28-10-12 to 30-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Two H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
11) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11. This connection is for uplift only and does not consider lateral forces.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
14) Use Simpson Strong-Tie THJA26 (THJA26 on 1 ply, Left Hand Hip) or equivalent at 4-1-10 from the left end to connect truss(es) to front face of bottom chord.
15) Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent at 9-11-4 from the left end to connect truss(es) to front face of bottom chord.
16) Fill all nail holes where hanger is in contact with lumber.
17) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
18) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

June 14,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	A2	Roof Special Girder	1	1	Job Reference (optional) I52488885

Uniform Loads (lb/ft)
Vert: 1-4=-48, 4-6=-58, 6-7=-48, 7-9=-58, 9-12=-48, 2-11=-20

Concentrated Loads (lb)
Vert: 4=-79 (F), 17=-241 (F), 5=-74 (F), 16=-28 (F), 18=-74 (F), 19=-74 (F), 30=-28 (F), 31=-28 (F), 32=-863 (F)

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	A3	Roof Special	1	1	Job Reference (optional) I52488886

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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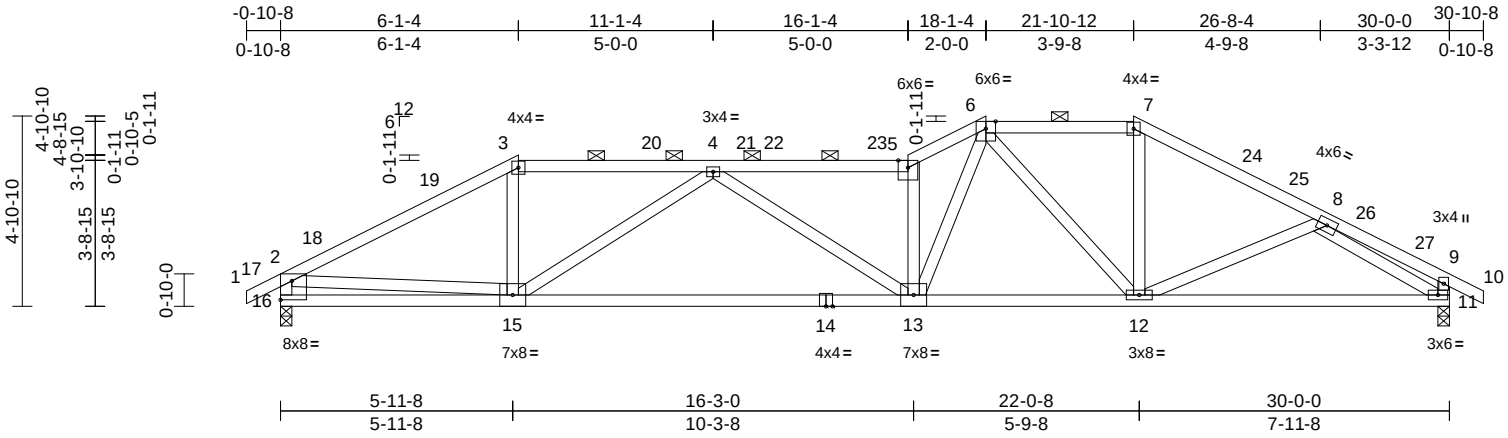

Scale = 1:59.1

Plate Offsets (X, Y): [16:Edge,0-5-13]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.31	13-15	>999	240	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.70	13-15	>509	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.09	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 150 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 14-11:2x4 SP 1650F 1.5E
WEBS 2x4 SPF No.3 *Except* 16-2,11-9:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-2-11 oc purlins, except end verticals, and 2-0-0 oc purlins (2-11-11 max.): 3-5, 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 13-15.

REACTIONS (lb/size) 11=1117/0-3-8, 16=1130/0-3-8
Max Horiz 16=85 (LC 15)
Max Uplift 11=-162 (LC 17), 16=-268 (LC 16)
Max Grav 11=1408 (LC 2), 16=1408 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-2176/395, 3-4=-1837/388, 4-5=-2863/548, 5-6=-3150/621, 6-7=-1730/421, 7-8=-2021/421, 8-9=-348/9, 9-10=0/39, 2-16=-1366/331, 9-11=-308/99
BOT CHORD 15-16=-256/488, 13-15=-462/2687, 12-13=-289/2122, 11-12=-336/1708
WEBS 3-15=-23/623, 4-15=-1085/267, 4-13=0/345, 5-13=-1565/343, 6-13=-304/1773, 6-12=-679/143, 7-12=-54/539, 8-12=-107/247, 2-15=-144/1491, 8-11=-1782/481

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 6-1-4, Exterior(2R) 6-1-4 to 11-1-4, Interior (1) 11-1-4 to 18-1-4, Exterior(2E) 18-1-4 to 21-10-12, Exterior(2R) 21-10-12 to 26-10-6, Interior (1) 26-10-6 to 30-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 16 and 11. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	A4	Roof Special	1	1	Job Reference (optional) I52488887

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:14:34 Page: 1
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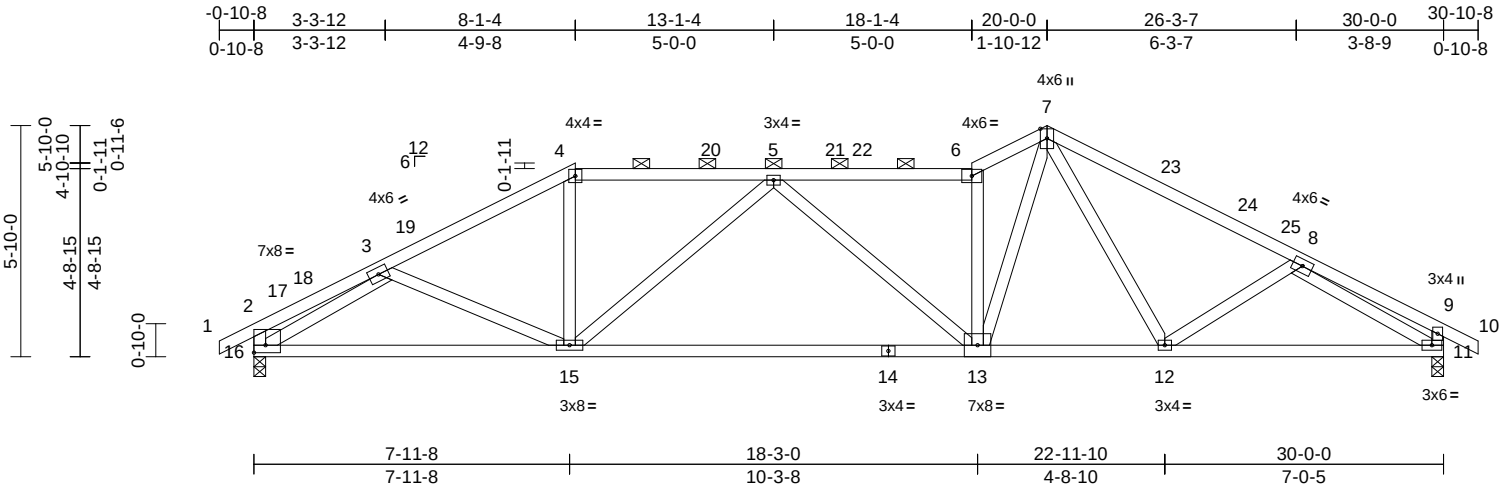

Scale = 1:58.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.27	13-15	>999	240	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.60	13-15	>595	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.09	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 154 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 14-11:2x4 SP 1650F 1.5E
WEBS 2x4 SPF No.3 *Except* 16-2,11-9:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-6-13 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS (lb/size) 11=1098/0-3-8, 16=1111/0-3-8
Max Horiz 16=99 (LC 15)
Max Uplift 11=-183 (LC 17), 16=-278 (LC 16)
Max Grav 11=1408 (LC 2), 16=1408 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-282/38, 3-4=-2047/396, 4-5=-1756/386, 5-6=-2138/445, 6-7=-2370/502, 7-8=-2000/412, 8-9=-309/9, 9-10=0/34, 2-16=-287/111, 9-11=-273/93
BOT CHORD 15-16=-412/1717, 13-15=-388/2204, 12-13=-175/1624, 11-12=-327/1789
WEBS 3-15=-125/219, 4-15=-35/557, 5-15=-600/187, 5-13=-216/152, 6-13=-1238/289, 7-13=-294/1560, 7-12=-76/213, 8-12=-205/216, 3-16=-1842/417, 8-11=-1890/470

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 8-1-4, Exterior(2R) 8-1-4 to 13-1-4, Interior (1) 13-1-4 to 20-0-0, Exterior(2R) 20-0-0 to 25-0-0, Interior (1) 25-0-0 to 30-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 16 and 11. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	A5	Hip	1	1	Job Reference (optional) I52488888

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:14:35 Page: 1
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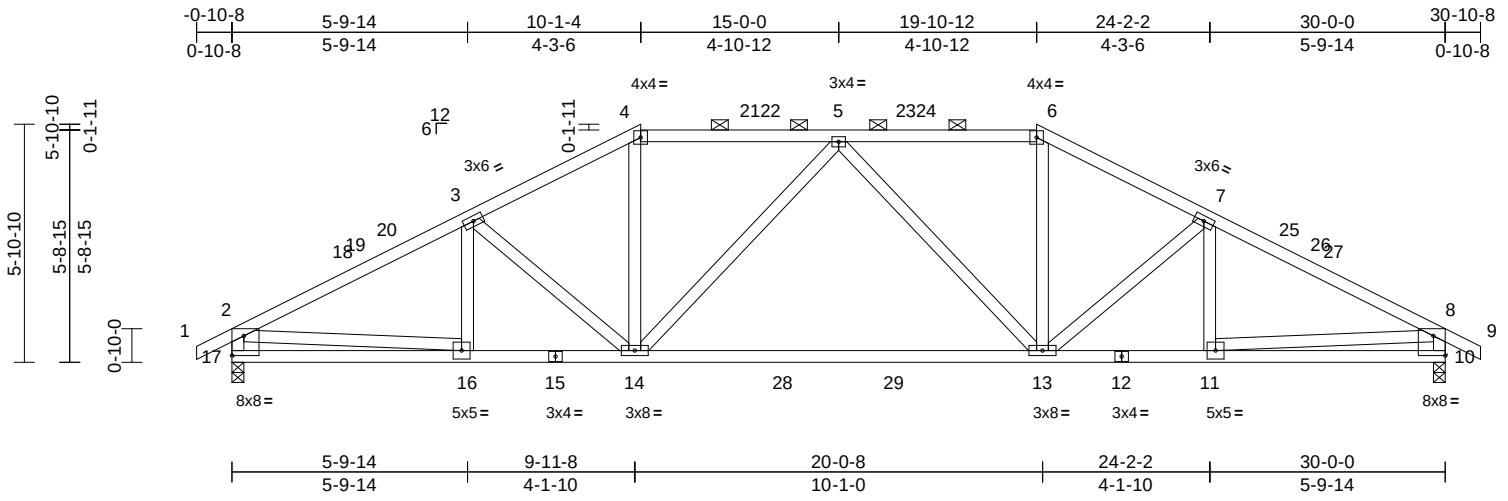

Scale = 1:57

Plate Offsets (X, Y): [7:0-0-0,0-0-0], [10:Edge,0-5-13], [17:Edge,0-5-13]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.45	13-14	>784	240	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.80	13-14	>447	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.61	Horz(CT)	0.06	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 156 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 12-15:2x4 SP 1650F 1.5E
WEBS 2x4 SPF No.3 *Except* 17-2,10-8:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-8-1 oc purlins, except end verticals, and 2-0-0 oc purlins (4-2-12 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 10=1104/0-3-8, 17=1104/0-3-8
Max Horiz 17=-99 (LC 14)
Max Uplift 10=-185 (LC 17), 17=-185 (LC 16)
Max Grav 10=1453 (LC 3), 17=1453 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-2163/388, 3-4=-1992/373, 4-5=-1725/361, 5-6=-1725/361, 6-7=-1992/373, 7-8=-2163/388, 8-9=0/39, 2-17=-1330/319, 8-10=-1330/319
BOT CHORD 16-17=-174/540, 14-16=-269/1863, 13-14=-224/1887, 11-13=-247/1863, 10-11=-99/498
WEBS 3-14=-326/189, 4-14=-63/630, 5-14=-403/167, 5-13=-403/167, 6-13=-63/630, 7-13=-326/189, 7-11=-105/50, 2-16=-178/1390, 8-11=-176/1390, 3-16=-105/50

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 10-1-4, Exterior(2R) 10-1-4 to 17-2-2, Interior (1) 17-2-2 to 19-10-12, Exterior(2R) 19-10-12 to 26-11-10, Interior (1) 26-11-10 to 30-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17 and 10. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	A6	Hip	1	1	Job Reference (optional) I52488889

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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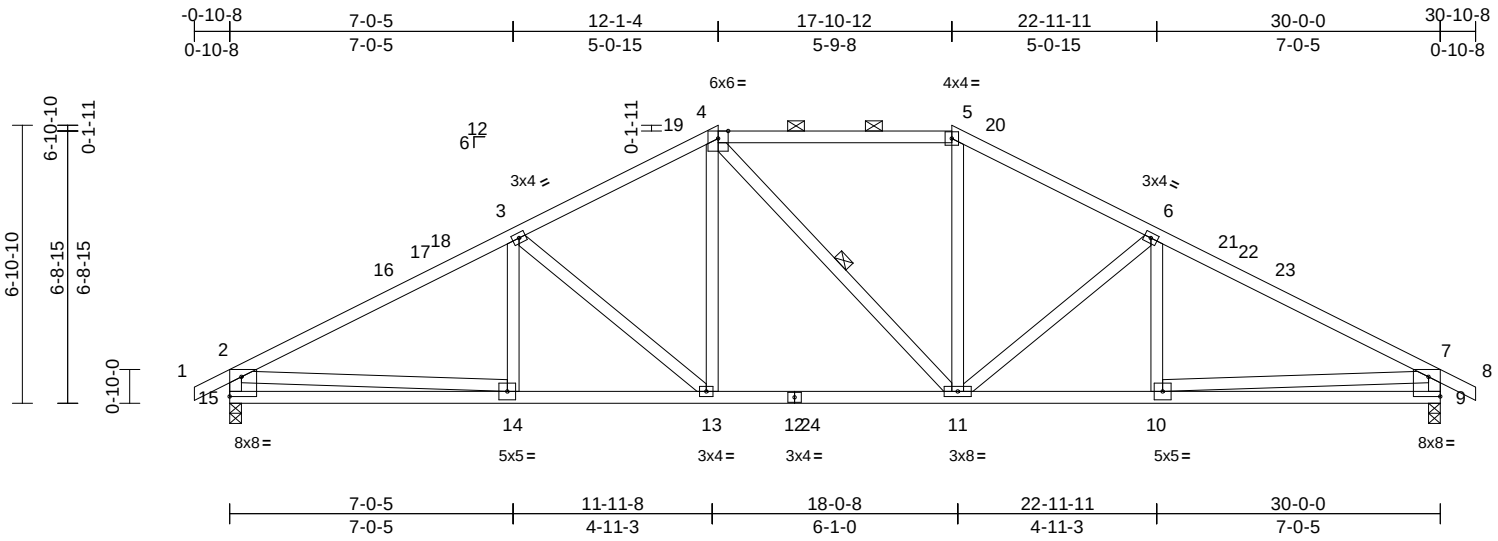

Scale = 1:57.1

Plate Offsets (X, Y): [9:Edge,0-5-13], [15:Edge,0-5-13]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.19	11-13	>999	240	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.34	11-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.06	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 159 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SPF No.3 *Except* 15-2,9-7:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-0-3 oc purlins, except end verticals, and 2-0-0 oc purlins (2-11-15 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-11

REACTIONS (lb/size) 9=1084/0-3-8, 15=1084/0-3-8
Max Horiz 15=113 (LC 15)
Max Uplift 9=-205 (LC 17), 15=-205 (LC 16)
Max Grav 9=1470 (LC 47), 15=1475 (LC 47)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/34, 2-3=-2236/371, 3-4=-1842/371, 4-5=-1561/369, 5-6=-1819/374, 6-7=-2232/370, 7-8=0/34, 2-15=-1362/314, 7-9=-1363/313
BOT CHORD 14-15=-270/691, 13-14=-242/1902, 11-13=-126/1580, 10-11=-219/1898, 9-10=-179/653
WEBS 3-13=-508/206, 4-13=-57/570, 4-11=-174/160, 5-11=-26/524, 6-11=-516/201, 6-10=0/162, 2-14=-101/1316, 7-10=-97/1319, 3-14=-6/144

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 12-1-4, Exterior(2E) 12-1-4 to 17-10-12, Exterior(2R) 17-10-12 to 24-11-10, Interior (1) 24-11-10 to 30-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15 and 9. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	A7	Hip	1	1	I52488890 Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/21/2022

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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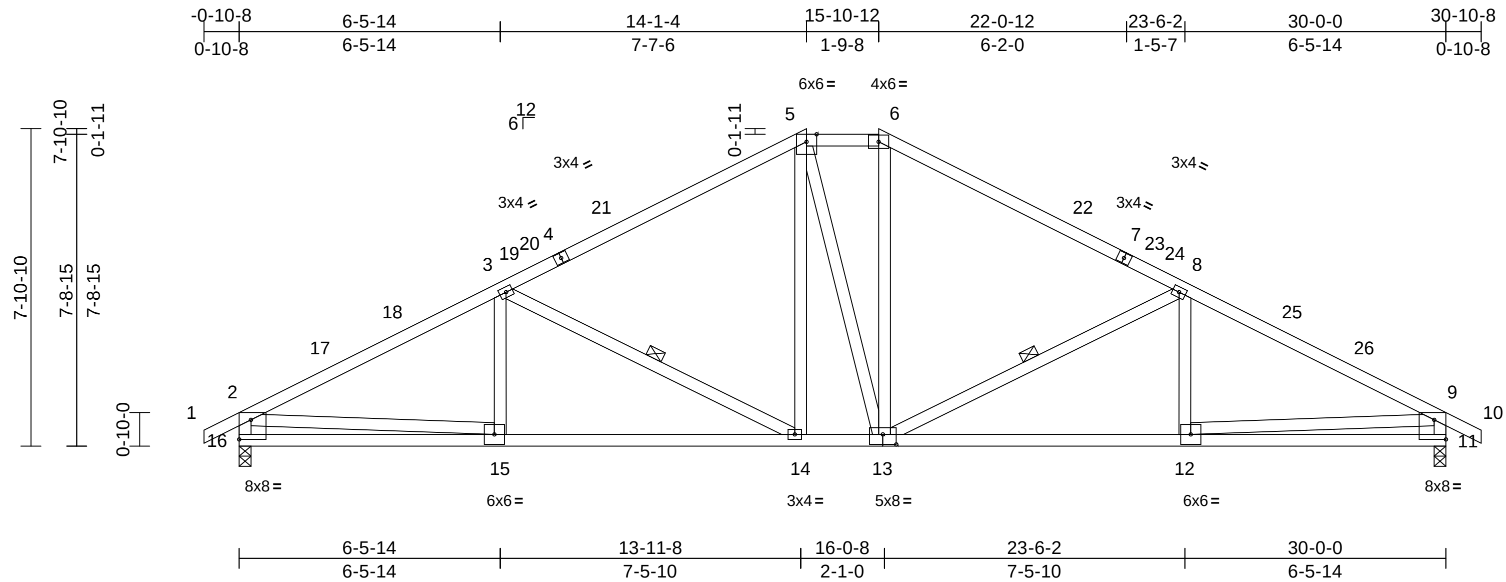

Scale = 1:57.3

Plate Offsets (X, Y): [11:Edge,0-5-13], [13:0-4-0,0-3-0], [16:Edge,0-5-13]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.14	12-13	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.31	12-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.06	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 164 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP 1650F 1.5E *Except* 5-6:2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SPF No.3 *Except* 16-2,11-9:2x4 SP No.2

BRACING

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

REACTIONS (lb/size) 11=1064/0-3-8, 16=1064/0-3-8
Max Horiz 16=127 (LC 15)
Max Uplift 11=-222 (LC 17), 16=-222 (LC 16)
Max Grav 11=1469 (LC 41), 16=1469 (LC 41)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/34, 2-3=-2383/349, 3-5=-1785/330, 5-6=-1442/351, 6-8=-1771/336, 8-9=-2390/346, 9-10=0/34, 2-16=-1404/296, 9-11=-1409/293
BOT CHORD 15-16=-215/402, 14-15=-314/2066, 12-14=-213/2072, 11-12=-110/375
WEBS 3-14=-679/257, 5-14=-39/442, 5-13=-268/196, 6-13=-80/408, 8-13=-698/247, 2-15=-180/1690, 9-12=-170/1704, 3-15=-24/199, 8-12=-6/232

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 14-1-4, Exterior(2E) 14-1-4 to 15-10-12, Exterior(2R) 15-10-12 to 22-11-10, Interior (1) 22-11-10 to 30-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 16 and 11. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 14,2022

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	A8	Common	3	1	Job Reference (optional) I52488891

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:14:36 Page: 1
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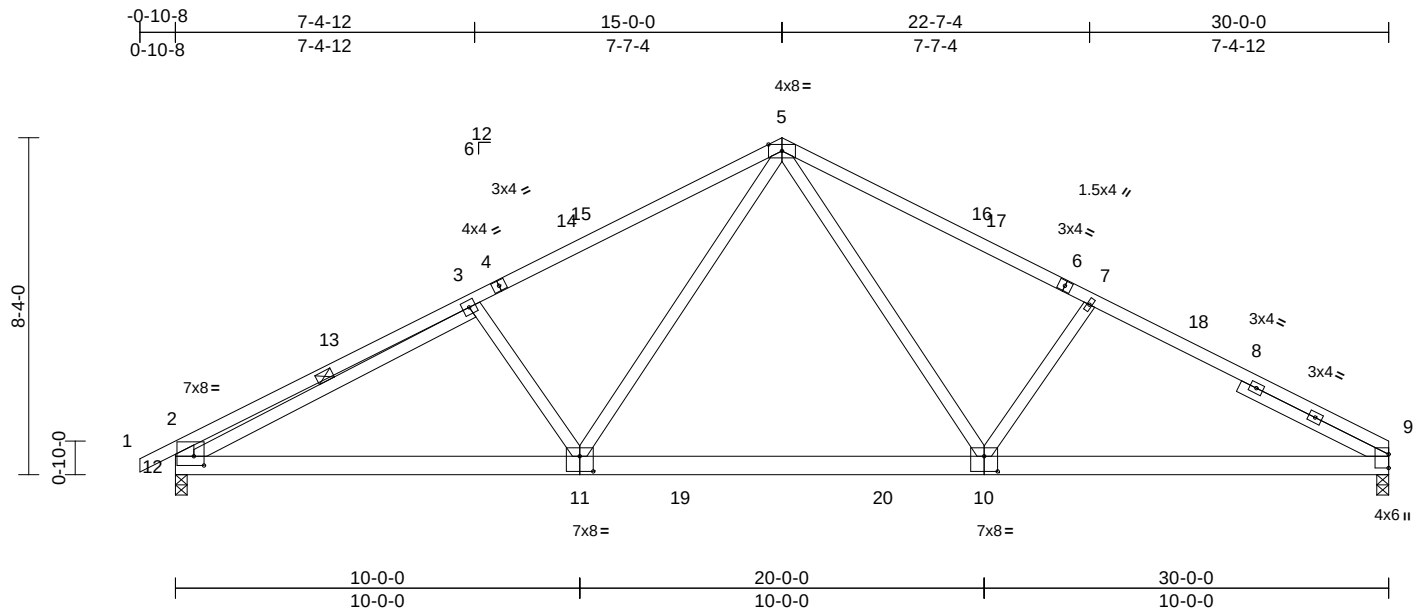

Scale = 1:57

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.30	10-11	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.51	10-11	>700	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.05	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 152 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E *Except* 1-4,6-9:2x4 SP No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x4 SPF No.3 *Except* 12-2:2x6 SP 2400F 2.0E
SLIDER Right 2x4 SP 2400F 2.0E -- 4-1-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-9-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-12

REACTIONS (lb/size) 9=1007/0-3-8, 12=1062/0-3-8
Max Horiz 12=-141 (LC 21)
Max Uplift 9=-203 (LC 17), 12=-230 (LC 16)
Max Grav 9=1413 (LC 3), 12=1479 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/37, 2-3=-1128/299, 3-5=-1976/405, 5-7=-2001/418, 7-9=-2218/399, 2-12=-779/281
BOT CHORD 9-12=-331/1877
WEBS 5-10=-144/772, 7-10=-420/273, 5-11=-136/735, 3-11=-399/268, 3-12=-1066/163

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 15-0-0, Exterior(2R) 15-0-0 to 20-0-0, Interior (1) 20-0-0 to 30-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9 and 12. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	B1	Half Hip Girder	1	3	Job Reference (optional) I52488892

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:14:38 Page: 1
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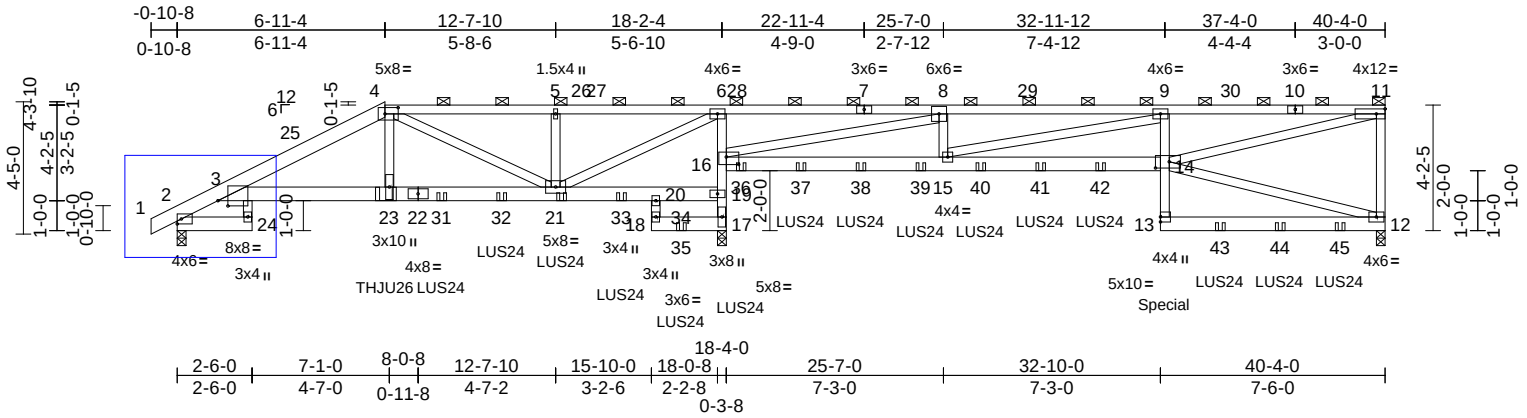

Scale = 1:76.9

Plate Offsets (X, Y): [3:0-4-0,0-2-2], [4:0-5-4,0-2-8], [14:0-5-8,0-2-8], [16:0-5-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.21	14-15	>999	240	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.36	14-15	>724	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.90	Horz(CT)	0.14	12	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 638 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 1650F 1.5E *Except* 1-4:2x6 SPF No.2, 4-7:2x4 SP No.2
BOT CHORD 2x6 SPF No.2 *Except* 24-3,20-18:2x4 SPF No.3, 17-6,9-13:2x4 SP 1650F 1.5E
WEBS 2x4 SPF No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-11.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 2=1367/0-3-8, 12=2159/0-3-8, 17=5024/0-3-8
Max Horiz 2=172 (LC 13)
Max Uplift 2=-400 (LC 16), 12=-703 (LC 12), 17=-1658 (LC 13)
Max Grav 2=1534 (LC 38), 12=2357 (LC 37), 17=5249 (LC 37)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/8, 2-3=-911/277, 3-4=-3162/998, 4-5=-2010/666, 5-6=-2010/666, 6-8=-692/2122, 8-9=-5273/1760, 9-11=-6077/1912, 11-12=-1795/574
BOT CHORD 2-24=-116/25, 3-24=-38/170, 3-23=-974/2832, 21-23=-995/2902, 20-21=-1899/588, 19-20=-2186/675, 18-20=0/55, 17-18=-87/290, 17-19=-5247/1679, 16-19=-5036/1626, 6-16=-2507/846, 15-16=-1722/5273, 14-15=-1939/6192, 13-14=-101/486, 9-14=-416/272, 12-13=-79/302
WEBS 4-23=-410/1370, 4-21=-1194/454, 5-21=-409/202, 6-21=-1343/4382, 11-14=-1897/6081, 8-15=-357/1461, 8-16=-7540/2416, 9-15=-1016/229, 12-14=-221/97

NOTES
1) 3-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, 2x4 - 1 row at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 4-23 2x4 - 2 rows staggered at 0-7-0 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=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 6-11-4, Exterior(2R) 6-11-4 to 14-0-2, Interior (1) 14-0-2 to 40-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
8) Provide adequate drainage to prevent water ponding.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) Two H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12. This connection is for uplift only and does not consider lateral forces.
12) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
13) LGT3-SDS2.5 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17. This connection is for uplift only and does not consider lateral forces.

June 14,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	B1	Half Hip Girder	1	3	Job Reference (optional) I52488892

14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
16) Use Simpson Strong-Tie THJU26 (SGL & SGL LC 2-PLY) or equivalent at 6-11-10 from the left end to connect truss(es) to front face of bottom chord.
17) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 4-0-0 oc max. starting at 8-10-0 from the left end to 38-10-0 to connect truss(es) to front face of bottom chord.
18) Fill all nail holes where hanger is in contact with lumber.
19) LGT3 Hurricane ties must have three studs in line below the truss.
20) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 289 lb down and 108 lb up at 32-11-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (lb/ft)
   Vert: 1-3=-48, 3-4=-48, 4-11=-58, 2-24=-20, 3-20=-20, 17-18=-20, 14-16=-20, 12-13=-20
   Concentrated Loads (lb)
   Vert: 23=-825 (F), 21=-287 (F), 14=-289 (F), 31=-287 (F), 32=-287 (F), 33=-287 (F), 34=-289 (F), 36=-289 (F), 37=-289 (F), 38=-289 (F), 39=-289 (F), 40=-289 (F), 41=-289 (F), 42=-289 (F), 43=-289 (F), 44=-289 (F), 45=-289 (F)

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	B2	Half Hip	1	1	Job Reference (optional) I52488893

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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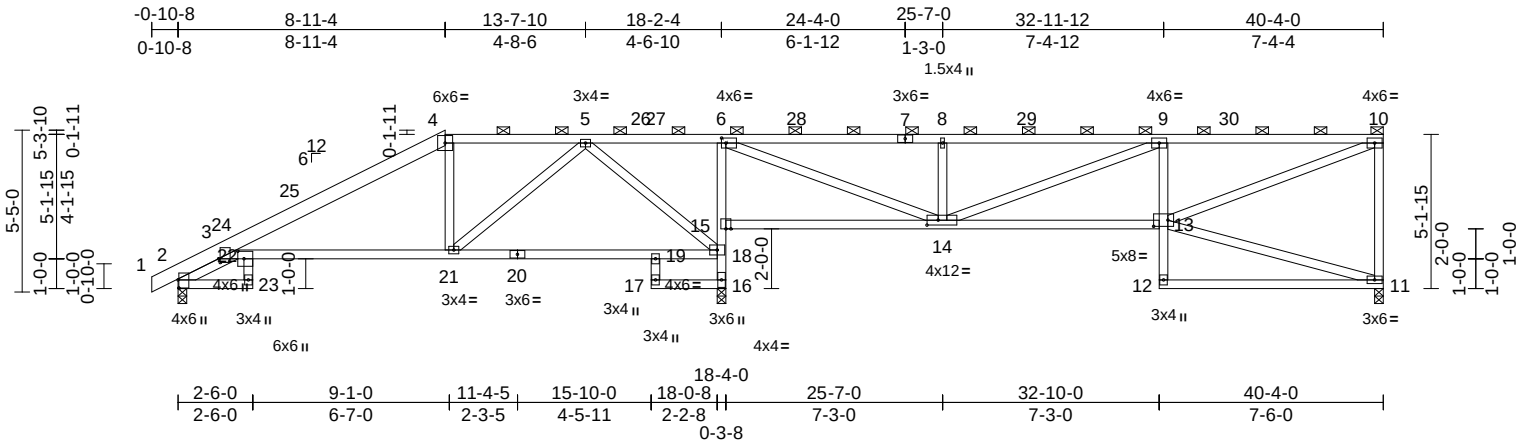

Scale = 1:77.1

Plate Offsets (X, Y): [2:0-3-4,0-0-5], [3:0-1-8,0-0-10], [6:0-1-12,0-2-0], [13:0-5-12,0-2-8], [14:0-4-8,0-2-0], [22:0-3-0,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.30	21-22	>734	240	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.51	21-22	>427	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.25	16	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 209 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SPF No.2 *Except* 4-7:2x4 SP No.2, 7-10:2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2 *Except* 23-22,19-17:2x4 SPF No.3, 3-20:2x4 SP 1650F 1.5E
WEBS 2x4 SPF No.3
SLIDER Left 2x4 SP No.2 -- 2-1-6

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 4-10.
BOT CHORD Rigid ceiling directly applied or 3-5-2 oc bracing.

REACTIONS (lb/size) 2=595/0-3-8, 11=783/0-3-8, 16=1697/0-3-8
Max Horiz 2=217 (LC 15)
Max Uplift 2=-125 (LC 16), 11=-210 (LC 12), 16=-469 (LC 13)
Max Grav 2=808 (LC 38), 11=994 (LC 37), 16=2008 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/1, 2-3=-668/153, 3-4=-967/147, 4-5=-801/179, 5-6=-278/458, 6-8=-1475/373, 8-9=-1475/373, 9-10=-1710/424, 10-11=-919/241
BOT CHORD 2-23=-133/276, 22-23=-8/65, 3-22=-51/552, 21-22=-179/806, 19-21=-59/384, 18-19=0/327, 17-19=-2/20, 16-17=-75/93, 16-18=-1984/496, 15-18=-1293/340, 6-15=-1212/375, 14-15=-545/207, 13-14=-396/1728, 12-13=0/148, 9-13=-516/235, 11-12=0/53
WEBS 4-21=-153/195, 6-14=-470/2031, 8-14=-500/228, 9-14=-433/156, 11-13=-96/77, 10-13=-390/1801, 5-21=-180/660, 5-18=-1016/295

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 8-11-4, Exterior(2R) 8-11-4 to 16-0-2, Interior (1) 16-0-2 to 40-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11, 2, and 16. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	B3	Half Hip	1	1	Job Reference (optional) I52488894

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/21/2022

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:14:39 Page: 1
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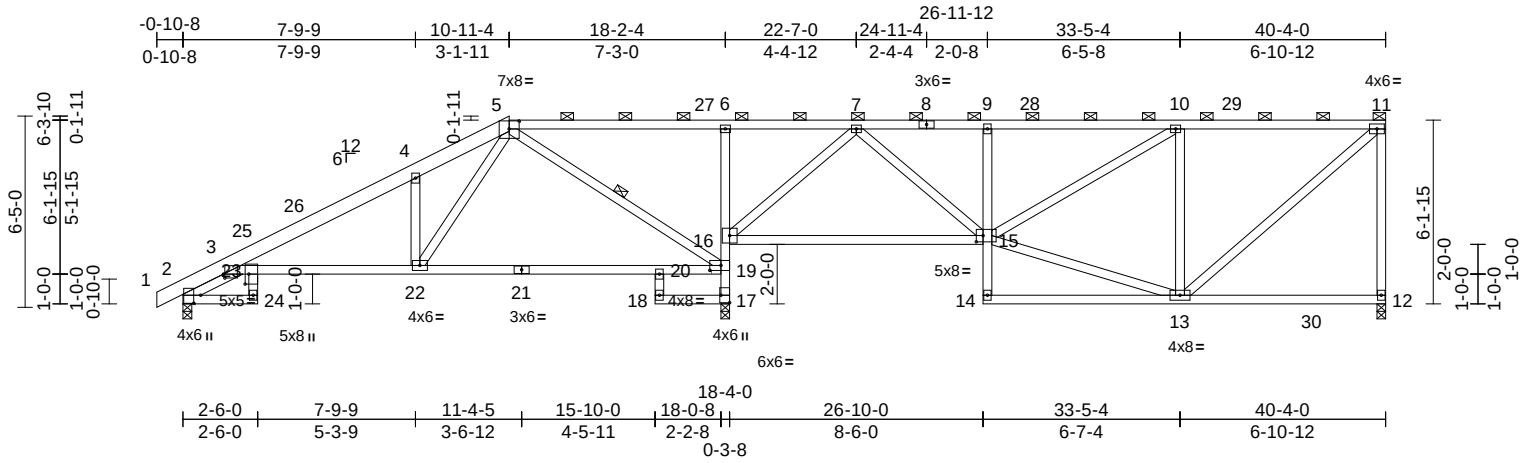

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Plate Offsets (X, Y): [2:0-3-4,0-2-13], [3:0-0-9,0-1-9], [5:0-4-0,0-3-3], [15:0-2-12,0-2-8], [17:Edge,0-3-8], [19:0-4-8,0-2-0], [23:0-4-0,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.36	20-22	>602	240	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.72	20-22	>301	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.24	17	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 224 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 1-5:2x6 SPF No.2
BOT CHORD 2x4 SP No.2 *Except* 24-23,20-18:2x4 SPF No.3, 3-21:2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.3
SLIDER Left 2x4 SP No.2 -- 2-1-6

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-5-11 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 5-11.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 5-19

REACTIONS (lb/size) 2=597/0-3-8, 12=792/0-3-8, 17=1666/0-3-8
Max Horiz 2=261 (LC 13)
Max Uplift 2=-128 (LC 16), 12=-204 (LC 12), 17=-495 (LC 13)
Max Grav 2=901 (LC 40), 12=1067 (LC 39), 17=2029 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/1, 2-3=-852/110, 3-4=-1440/125, 4-5=-1503/277, 5-6=-296/291, 6-7=-321/378, 7-9=-1324/299, 9-10=-1297/304, 10-11=-879/239, 11-12=-950/241
BOT CHORD 2-24=-90/333, 23-24=-3/91, 3-23=-150/931, 22-23=-240/1264, 20-22=-121/619, 19-20=-26/695, 18-20=-5/9, 17-18=-146/6, 17-19=-1956/525, 16-19=-1412/394, 6-16=-581/208, 15-16=-72/707, 14-15=0/107, 9-15=-390/178, 13-14=-14/16, 12-13=-87/98
WEBS 4-22=-635/298, 5-22=-237/1241, 5-19=-998/374, 13-15=-172/911, 10-15=-75/534, 10-13=-816/264, 11-13=-221/1127, 7-16=-1201/360, 7-15=-184/848

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 10-11-4, Exterior(2R) 10-11-4 to 18-2-4, Interior (1) 18-2-4 to 40-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are 3x4 MT20 unless otherwise indicated.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12 and 2. This connection is for uplift only and does not consider lateral forces.
11) Two H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17. This connection is for uplift only and does not consider lateral forces.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER
June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	B4	Half Hip	1	1	Job Reference (optional) I52488895

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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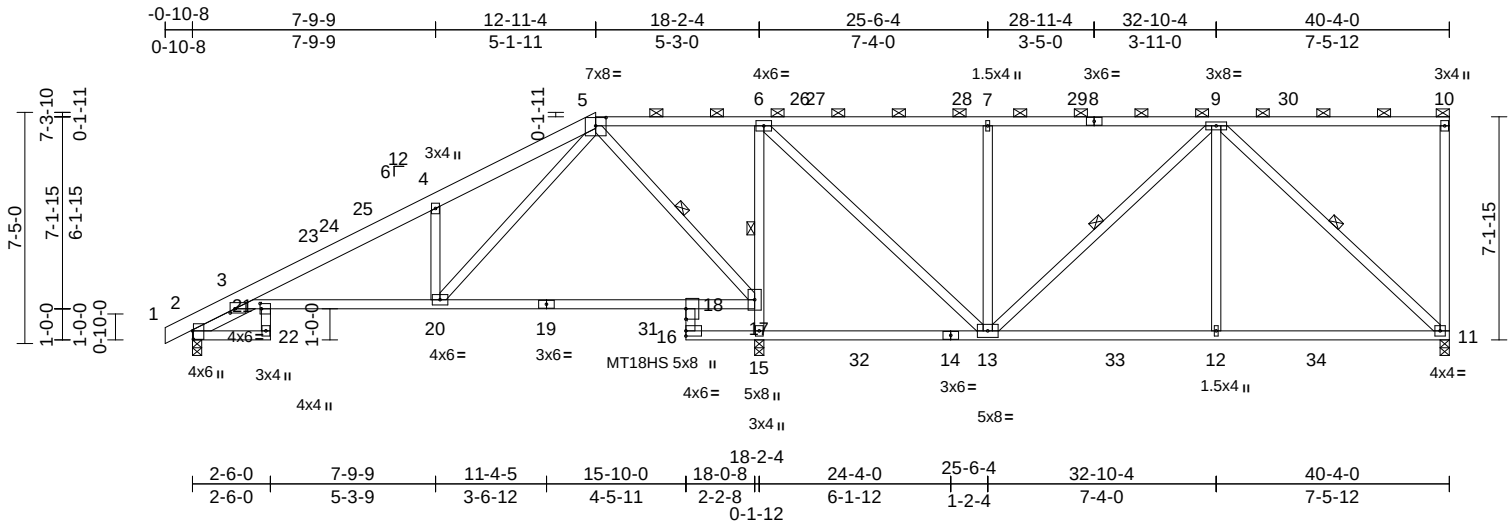

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Plate Offsets (X, Y): [2:0-3-4,0-0-5], [3:0-1-13,0-1-10], [5:0-4-0,0-3-3], [18:0-4-0,Edge], [21:0-2-0,0-0-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.48	18-20	>457	240	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.71	18-20	>307	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.08	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 223 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SPF No.2 *Except* 5-8:2x4 SP No.2, 8-10:2x4 SP 2400F 2.0E
BOT CHORD	2x4 SP No.2 *Except* 3-19:2x4 SP 1650F 1.5E
WEBS	2x4 SPF No.3
SLIDER	Left 2x4 SP No.2 -- 2-1-6

BRACING

TOP CHORD	Structural wood sheathing directly applied or 4-11-2 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 5-10.
BOT CHORD	Rigid ceiling directly applied or 1-7-8 oc bracing.
WEBS	1 Row at midpt 5-17, 6-15, 9-11, 9-13

REACTIONS (lb/size) 2=506/0-3-8, 11=723/0-3-8, 15=1806/0-3-8
Max Horiz 2=306 (LC 13)
Max Uplift 2=-191 (LC 16), 11=-270 (LC 12), 15=-375 (LC 13)
Max Grav 2=719 (LC 38), 11=971 (LC 37), 15=2504 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/0, 2-3=-678/165, 3-4=-1057/301, 4-5=-1152/481, 5-6=-101/719, 6-7=-533/372, 7-9=-533/372, 9-10=-115/119, 10-11=-244/93
BOT CHORD	2-22=-106/239, 21-22=-5/73, 3-21=-293/674, 20-21=-399/913, 18-20=-202/123, 17-18=-119/569, 16-18=-197/0, 15-16=-625/0, 13-15=-670/0, 12-13=-238/724, 11-12=-238/724
WEBS	4-20=-706/348, 5-20=-329/1279, 5-17=-970/268, 15-17=-2079/495, 6-17=-1388/368, 9-11=-971/320, 7-13=-524/240, 6-13=-236/1385, 9-13=-405/23, 9-12=0/445

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 12-11-4, Exterior(2R) 12-11-4 to 20-0-2, Interior (1) 20-0-2 to 40-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11, 2, and 15. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	B5	Half Hip	1	1	Job Reference (optional) I52488896

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:14:41 Page: 1
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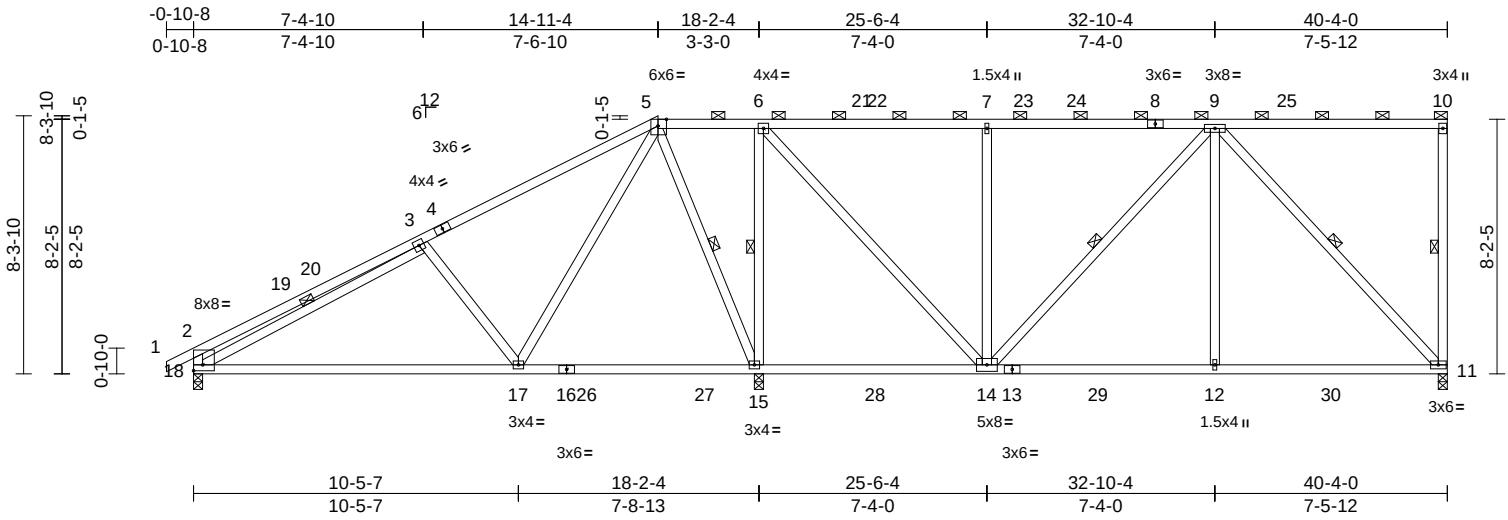

Scale = 1:74.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.36	17-18	>602	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.73	17-18	>299	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.02	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 229 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 1650F 1.5E *Except* 5-8,1-4:2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SPF No.3 *Except* 18-2:2x4 SP No.2

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

REACTIONS (lb/size) 11=760/0-3-8, 15=1705/0-3-8, 18=548/0-3-8
Max Horiz 18=359 (LC 13)
Max Uplift 11=-215 (LC 12), 15=-387 (LC 13), 18=-152 (LC 16)
Max Grav 11=1085 (LC 39), 15=2276 (LC 3), 18=746 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/34, 2-3=-839/288, 3-5=-625/177, 5-6=-102/319, 6-7=-597/238, 7-9=-597/238, 9-10=-130/137, 10-11=-264/104, 2-18=-649/267
BOT CHORD 17-18=-338/727, 15-17=-146/129, 14-15=-369/146, 12-14=-208/717, 11-12=-208/717
WEBS 3-17=-530/284, 5-17=-136/790, 5-15=-883/272, 6-15=-1334/347, 3-18=-177/229, 7-14=-567/234, 6-14=-219/1193, 9-14=-243/17, 9-12=0/464, 9-11=-1029/213

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 14-11-4, Exterior(2R) 14-11-4 to 22-0-2, Interior (1) 22-0-2 to 40-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11, 15, and 18. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	C1	Hip	1	1	Job Reference (optional) I52488897

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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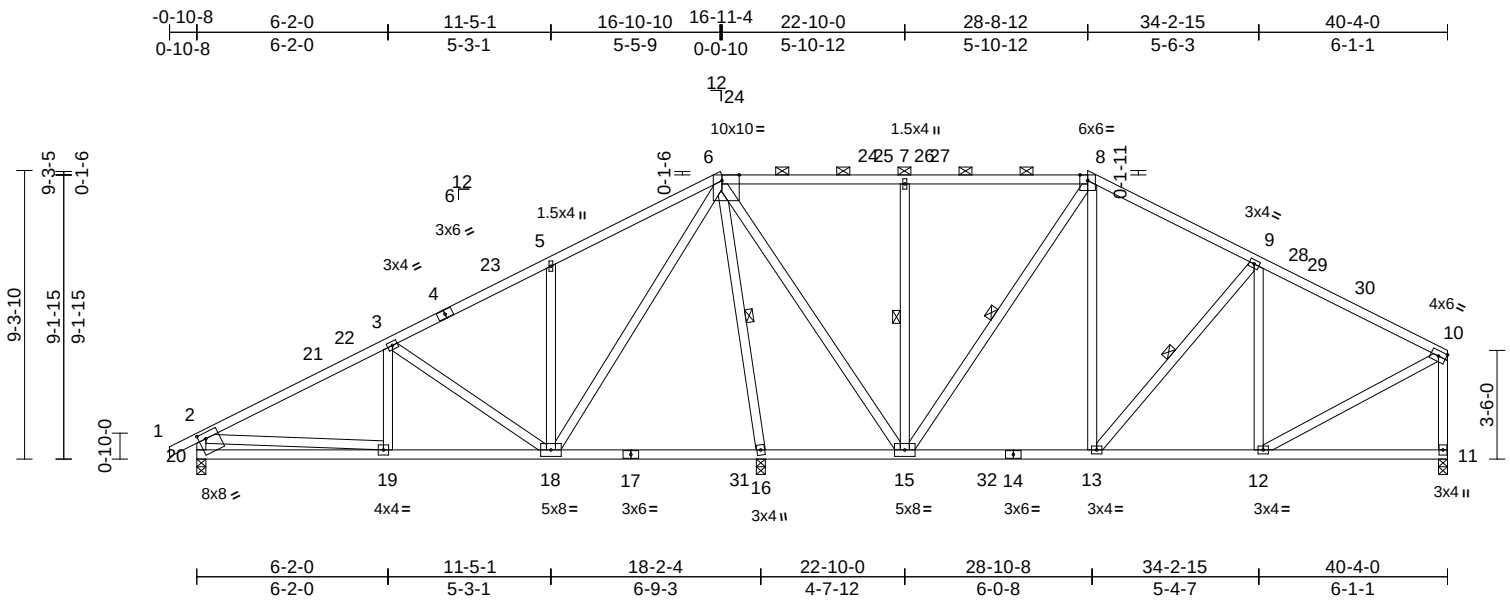

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Plate Offsets (X, Y): [6:0-6-10,Edge], [20:0-2-12,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.25	16-18	>855	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.40	16-18	>537	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.02	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 244 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SPF No.3 *Except* 20-2,11-10:2x4 SP No.2

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

REACTIONS (lb/size) 11=709/0-3-8, 16=1581/0-3-8, 20=588/0-3-8
Max Horiz 20=233 (LC 15)
Max Uplift 11=-148 (LC 17), 16=-227 (LC 16), 20=-148 (LC 16)
Max Grav 11=985 (LC 59), 16=2127 (LC 3), 20=799 (LC 58)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/34, 2-3=-1004/176, 3-5=-588/158, 5-6=-596/262, 6-7=-381/225, 7-8=-384/227, 8-9=-774/245, 9-10=-870/205, 2-20=-731/211, 10-11=-899/179
BOT CHORD 19-20=-260/417, 18-19=-233/869, 16-18=-186/159, 15-16=-391/209, 13-15=-55/618, 12-13=-116/718, 11-12=-43/59
WEBS 3-19=0/164, 3-18=-472/201, 5-18=-478/233, 7-15=-583/219, 8-15=-567/89, 8-13=-45/510, 9-13=-313/160, 9-12=-267/110, 10-12=-87/776, 2-19=0/610, 6-15=-197/1158, 6-18=-304/1086, 6-16=-1904/402

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 16-10-15, Exterior(2R) 16-10-15 to 23-11-12, Interior (1) 23-11-12 to 28-8-12, Exterior(2R) 28-8-12 to 35-9-10, Interior (1) 35-9-10 to 40-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 20, 11, and 16. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 14,2022

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	C2	Hip	1	1	I52488898 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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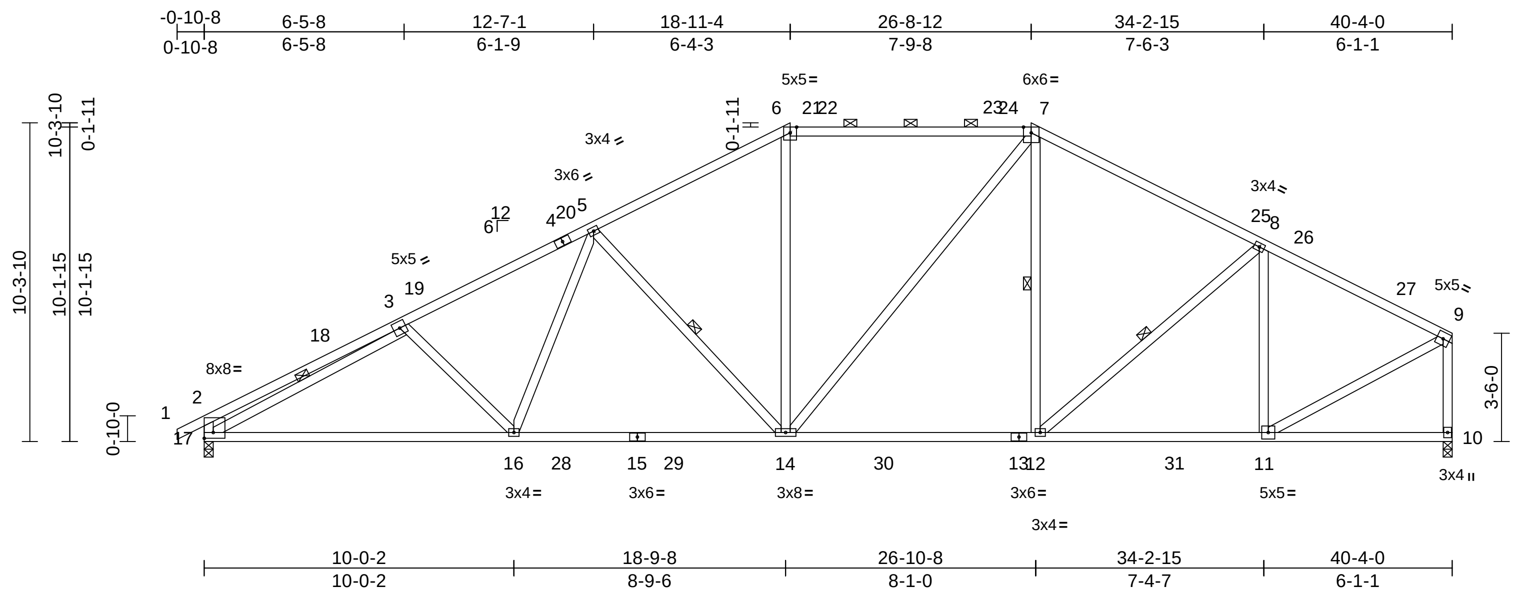

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Plate Offsets (X, Y): [2:Edge,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.53	14-16	>907	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.84	14-16	>575	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.09	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 225 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 1650F 1.5E *Except* 6-7:2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.3 *Except* 17-2,10-9:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-4-14 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-14, 7-12, 8-12, 3-17

REACTIONS (lb/size) 10=1399/0-3-8, 17=1439/0-3-8
Max Horiz 17=245 (LC 15)
Max Uplift 10=-211 (LC 17), 17=-290 (LC 16)
Max Grav 10=1949 (LC 3), 17=1985 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/34, 2-3=-839/229, 3-5=-3068/469, 5-6=-2344/460, 6-7=-2024/461, 7-8=-2103/438, 8-9=-1925/338, 2-17=-627/232, 9-10=-1869/317
BOT CHORD 16-17=-510/2761, 14-16=-403/2492, 12-14=-237/1794, 11-12=-262/1667, 10-11=-44/55
WEBS 3-16=-234/237, 5-16=-45/527, 5-14=-759/279, 6-14=-17/649, 7-14=-131/487, 7-12=-72/293, 8-12=-84/310, 8-11=-673/220, 3-17=-2434/294, 9-11=-253/1870

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 18-11-4, Exterior(2R) 18-11-4 to 26-0-2, Interior (1) 26-0-2 to 26-8-12, Exterior(2R) 26-8-12 to 33-9-10, Interior (1) 33-9-10 to 40-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17 and 10. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 14,2022

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	C3	Hip	1	1	Job Reference (optional) I52488899

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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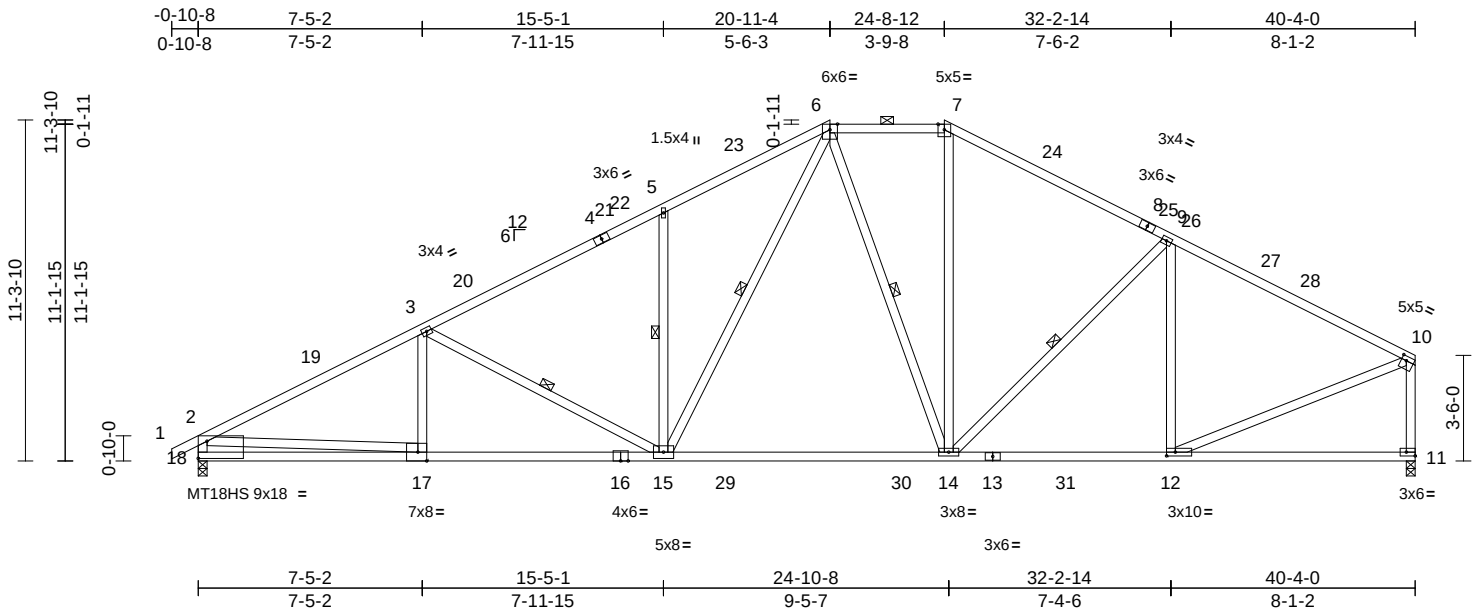

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Plate Offsets (X, Y): [10:Edge,0-1-12], [11:Edge,0-1-8], [12:0-3-8,0-1-8], [17:0-3-8,Edge], [18:Edge,0-6-13]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.62	14-15	>769	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.95	14-15	>504	180	MT18HS	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.09	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 232 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E *Except* 6-7:2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 16-13:2x4 SP 1650F 1.5E
WEBS 2x4 SPF No.3 *Except* 18-2,11-10:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-7-8 oc purlins, except end verticals, and 2-0-0 oc purlins (4-2-0 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 3-15, 6-15, 6-14, 9-14, 5-15

REACTIONS (lb/size) 11=1377/0-3-8, 18=1422/0-3-8
Max Horiz 18=259 (LC 13)
Max Uplift 11=-231 (LC 17), 18=-304 (LC 16)
Max Grav 11=1936 (LC 47), 18=1967 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/34, 2-3=-3208/464, 3-5=-2696/452, 5-6=-2713/598, 6-7=-1731/436, 7-9=-2054/423, 9-10=-2106/346, 2-18=-1838/360, 10-11=-1805/325
BOT CHORD 17-18=-359/738, 15-17=-515/2784, 14-15=-226/1767, 12-14=-245/1808, 11-12=-53/87
WEBS 3-17=-27/201, 3-15=-579/244, 6-15=-385/1257, 6-14=-351/167, 7-14=-62/532, 9-14=-169/176, 9-12=-505/180, 2-17=-181/2217, 5-15=-673/333, 10-12=-207/1874

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 20-11-4, Exterior(2E) 20-11-4 to 24-8-12, Exterior(2R) 24-8-12 to 31-9-10, Interior (1) 31-9-10 to 40-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 18 and 11. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	C4	Common	2	1	Job Reference (optional) I52488900

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/21/2022

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:14:43 Page: 1
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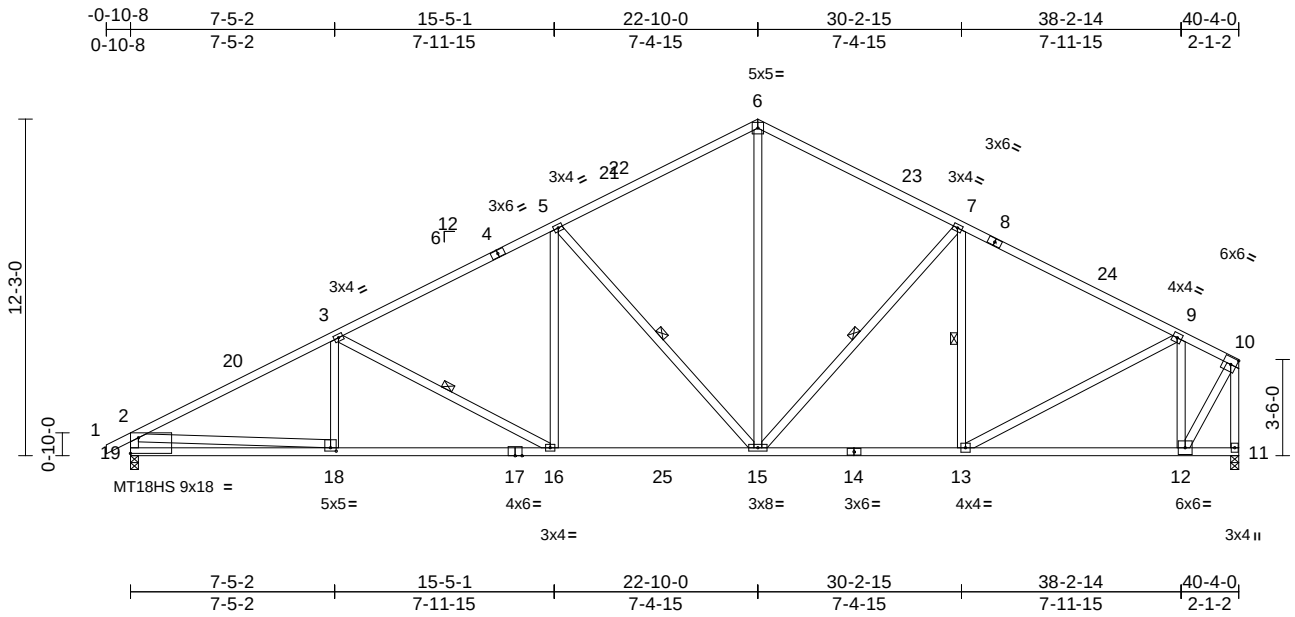

Scale = 1:83.8

Plate Offsets (X, Y): [18:0-2-8,0-1-8], [19:Edge,0-6-13]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.35	13-15	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.61	13-15	>791	180	MT18HS	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.10	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 231 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E *Except* 6-8,1-4:2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP 1650F 1.5E
WEBS 2x4 SPF No.3 *Except* 19-2,11-10:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-8-5 oc bracing.
WEBS 1 Row at midpt 3-16, 5-15, 7-15, 7-13

REACTIONS (lb/size) 11=1355/0-3-8, 19=1405/0-3-8
Max Horiz 19=273 (LC 13)
Max Uplift 11=-246 (LC 17), 19=-315 (LC 16)
Max Grav 11=1918 (LC 3), 19=1963 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/34, 2-3=-3205/479, 3-5=-2649/463, 5-6=-1934/454, 6-7=-1924/436, 7-9=-2143/366, 9-10=-995/182, 2-19=-1840/363, 10-11=-1929/268
BOT CHORD 18-19=-408/746, 16-18=-545/2791, 15-16=-342/2288, 13-15=-247/1824, 12-13=-182/920, 11-12=-48/55
WEBS 2-18=-139/2145, 10-12=-297/1785, 3-18=-14/208, 3-16=-584/233, 5-15=-994/359, 5-16=-23/569, 6-15=-185/1250, 7-15=-390/222, 7-13=-266/133, 9-13=-74/1023, 9-12=-1339/341

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 22-10-0, Exterior(2R) 22-10-0 to 27-10-0, Interior (1) 27-10-0 to 40-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) All plates are MT20 plates unless otherwise indicated.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 19 and 11. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	D1	Roof Special	2	1	Job Reference (optional) I52488901

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:14:44 Page: 1
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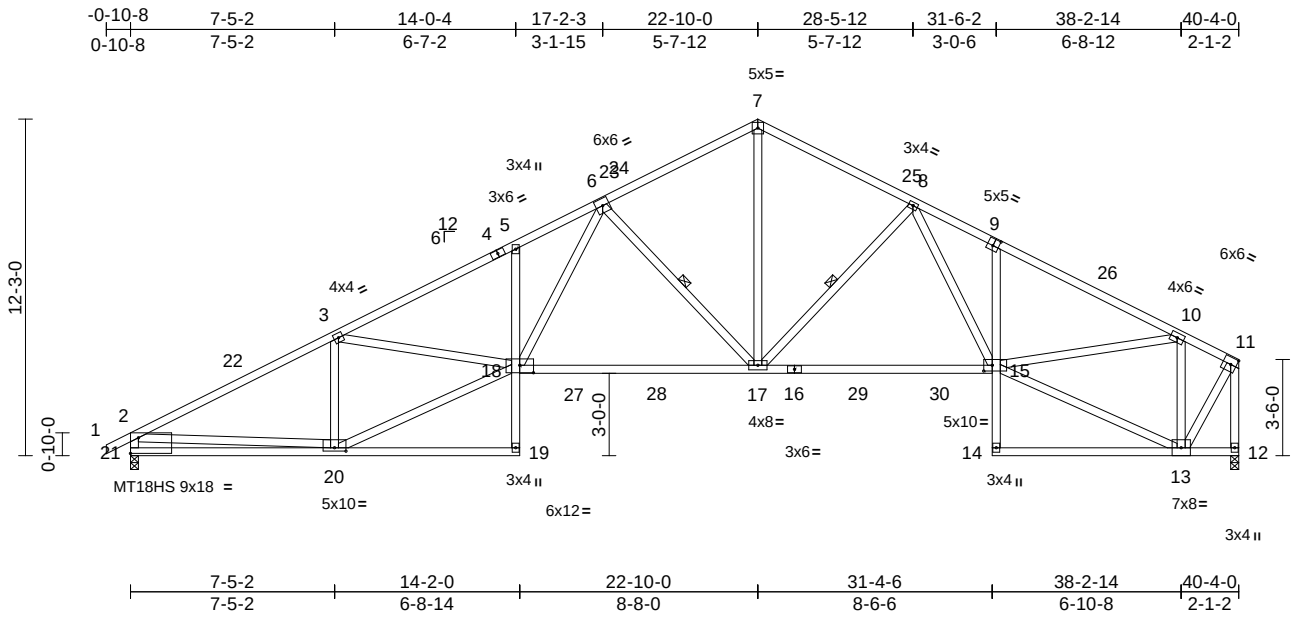

Scale = 1:83.8

Plate Offsets (X, Y): [9:0-2-8,0-3-0], [15:0-3-12,0-2-8], [18:0-6-0,0-3-4], [20:0-5-0,0-1-8], [21:Edge,0-6-13]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.50	17-18	>966	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.88	17-18	>548	180	MT18HS	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.34	12	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 248 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 1-4:2x4 SP 2400F 2.0E, 9-11:2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2 *Except* 19-5,9-14:2x4 SPF No.3, 18-16,16-15:2x4 SP 1650F 1.5E
WEBS 2x4 SPF No.3 *Except* 20-18,21-2,12-11:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 6-17, 8-17

REACTIONS (lb/size) 12=1355/0-3-8, 21=1405/0-3-8
Max Horiz 21=273 (LC 13)
Max Uplift 12=-246 (LC 17), 21=-315 (LC 16)
Max Grav 12=1902 (LC 3), 21=1950 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/34, 2-3=-3176/478, 3-5=-4394/711, 5-6=-4350/791, 6-7=-2470/492, 7-8=-2471/511, 8-10=-3269/591, 10-11=-993/180, 2-21=-1827/364, 11-12=-1927/265
BOT CHORD 20-21=-399/768, 19-20=-6/16, 18-19=0/110, 5-18=-296/163, 17-18=-464/3055, 15-17=-366/2585, 14-15=0/121, 9-15=-251/142, 13-14=-4/17, 12-13=-50/57
WEBS 3-20=-1198/354, 18-20=-591/3029, 3-18=-124/1114, 6-18=-357/1768, 6-17=-1338/420, 7-17=-277/1826, 8-17=-674/291, 8-15=-122/612, 2-20=-148/2089, 10-15=-222/1943, 10-13=-1725/425, 13-15=-193/995, 11-13=-296/1790

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 22-10-0, Exterior(2R) 22-10-0 to 27-10-0, Interior (1) 27-10-0 to 40-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) All plates are MT20 plates unless otherwise indicated.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 21 and 12. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	D2	Roof Special	2	1	Job Reference (optional) I52488902

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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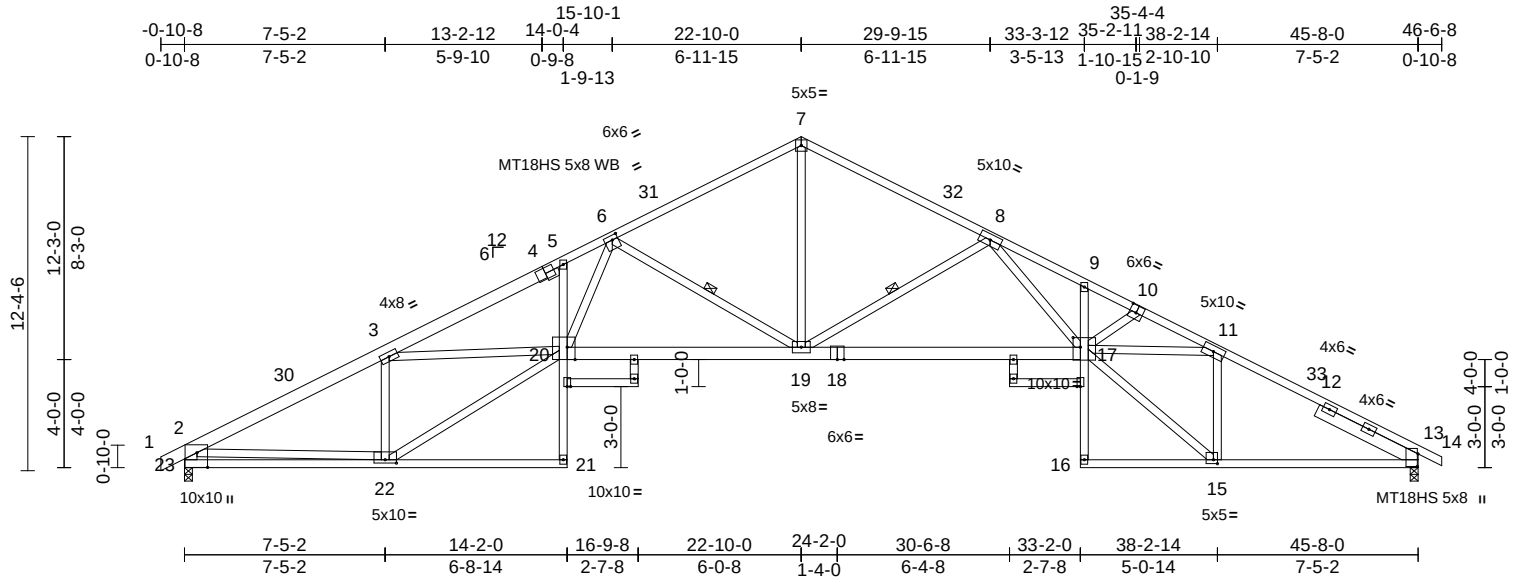

Scale = 1:85.3

Plate Offsets (X, Y): [6:0-2-8,0-2-0], [10:0-3-0,0-3-4], [13:0-5-9,0-0-5], [15:0-1-12,0-1-12], [17:0-3-4,0-4-4], [20:0-3-8,Edge], [22:0-5-0,0-1-8], [23:0-6-8,0-4-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.59	17-19	>926	240	MT18HS	197/144
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-1.12	17-19	>485	180	MT20	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.77	13	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 294 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E *Except* 1-4:2x6 SPF No.2

BOT CHORD 2x4 SPF No.3 *Except* 24-25,28-29:2x4 SP No.2, 20-18:2x6 SPF No.2, 16-13,21-23:2x4 SP 2400F 2.0E, 18-17:2x6 SP 2400F 2.0E

WEBS 2x4 SPF No.3 *Except* 22-20,20-3,19-7,17-8,15-17:2x4 SP No.2, 17-11:2x4 SP 1650F 1.5E, 23-2:2x6 SP 2400F 2.0E

OTHERS 2x4 SP No.2

SLIDER Right 2x6 SPF No.2 -- 4-2-0

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 19-20,17-19.

WEBS 1 Row at midpt 6-19, 8-19

REACTIONS (lb/size) 13=1580/0-3-8, 23=1591/0-3-8
Max Horiz 23=215 (LC 16)
Max Uplift 13=-333 (LC 17), 23=-337 (LC 16)
Max Grav 13=2106 (LC 2), 23=2122 (LC 2)

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

TOP CHORD 2-30=-3529/500, 3-30=-3394/520, 3-4=-6496/983, 4-5=-6307/1000, 5-6=-6298/1022, 6-31=-3461/522, 7-31=-3347/555, 7-32=-3347/570, 8-32=-3462/536, 8-9=-7740/1023, 9-10=-7788/1002, 10-11=-7974/1010, 11-33=-3426/525, 12-33=-3443/507, 12-13=-3564/498, 2-23=-2043/400

BOT CHORD 19-20=-679/4821, 18-19=-450/4834, 17-18=-450/4834, 13-15=-349/2993, 22-23=-418/1093

WEBS 3-22=-1875/462, 20-22=-669/3533, 3-20=-263/2641, 6-20=-362/2194, 6-19=-2153/569, 7-19=-294/2528, 8-19=-2169/483, 8-17=-355/3346, 15-17=-441/3833, 11-17=-355/4114, 11-15=-2327/367, 2-22=-162/1949

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 22-10-0, Exterior(2R) 22-10-0 to 27-10-0, Interior (1) 27-10-0 to 46-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) All plates are MT20 plates unless otherwise indicated.
7) All plates are 3x4 MT20 unless otherwise indicated.
8) The Fabrication Tolerance at joint 2 = 12%
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 333 lb uplift at joint 13 and 337 lb uplift at joint 23.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO I52488903
P220296-P220296-02	D3	Roof Special	1	1	Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:24:44 Page: 1
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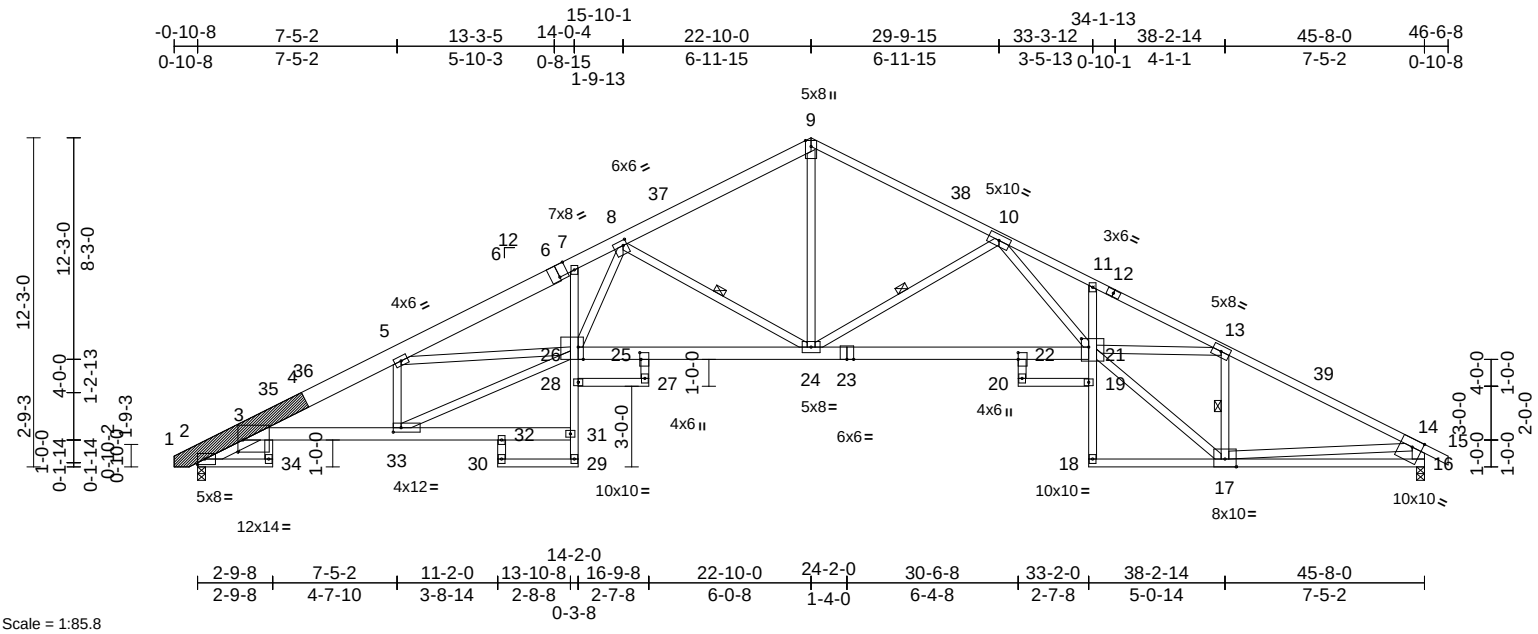

Scale = 1:85.8

Plate Offsets (X, Y): [3:0-2-4,0-5-6], [6:0-4-0,Edge], [8:0-1-12,0-2-4], [16:0-4-6,Edge], [21:0-3-4,0-3-12], [22:0-3-0,Edge], [25:0-3-0,0-0-8], [26:0-2-4,Edge], [33:0-3-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.59	22-24	>927	240	MT20	197/144
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-1.11	22-24	>490	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.79	16	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 346 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E *Except* 6-9:2x6 SPF No.2, 6-1:2x8 SP 2400F 2.0E

BOT CHORD 2x4 SPF No.3 *Except* 2-34,30-29,28-27,20-19,18-16:2x4 SP No.2, 3-31,23-21,23-26:2x6 SP 2400F 2.0E

WEBS 2x4 SPF No.3 *Except* 24-9,21-10,17-21,21-13:2x4 SP No.2, 16-14:2x6 SPF No.2, 33-26:2x4 SP 1650F 1.5E

LBR SCAB 1-4 SP 2400F 2.0E one side

SLIDER Left 2x4 SP No.2 -- 2-2-0

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 2-34,29-30.

WEBS 1 Row at midpt 8-24, 10-24, 13-17

REACTIONS (lb/size) 2=1590/0-3-8, 16=1588/0-3-8
Max Horiz 2=214 (LC 20)
Max Uplift 2=-315 (LC 16), 16=-336 (LC 17)
Max Grav 2=2110 (LC 2), 16=2117 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-4/0, 2-3=-1250/279, 3-5=-4757/742, 5-7=-6588/984, 7-8=-6372/1009, 8-9=-3477/546, 9-10=-3458/562, 10-11=-7592/977, 11-13=-7725/953, 13-14=-3435/507, 14-15=0/37, 14-16=-2037/401

BOT CHORD 2-34=-43/0, 3-34=0/67, 3-33=-801/4371, 32-33=-46/193, 31-32=-66/228, 30-32=0/50, 29-30=-34/19, 29-31=0/58, 28-31=0/131, 26-28=0/157, 7-26=-17/77, 27-28=-49/247, 25-27=-3/88, 25-26=-615/4615, 24-25=-664/4862, 22-24=-413/4744, 21-22=-376/4531, 20-22=0/77, 19-20=-37/213, 18-19=0/77, 19-21=0/114, 11-21=-176/100, 17-18=-20/83, 16-17=-224/747

WEBS 8-26=-348/2208, 8-24=-2180/564, 9-24=-288/2527, 10-24=-2055/462, 10-21=-358/3262, 17-21=-423/3735, 13-21=-300/3877, 13-17=-2470/370, 14-17=-166/2221, 5-33=-1760/431, 26-33=-829/4590, 5-26=-33/1366

NOTES

1) Attached 5-5-12 scab 1 to 4, front face(s) 2x8 SP 2400F 2.0E with 2 row(s) of 10d (0.148"x3") nails spaced 9" o.c.except : starting at 1-3-4 from end at joint 1, nail 2 row(s) at 2" o.c. for 3-8-14.
2) Unbalanced roof live loads have been considered for this design.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-7-2 to 4-4-14, Interior (1) 4-4-14 to 22-10-0, Exterior(2R) 22-10-0 to 27-10-0, Interior (1) 27-10-0 to 46-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
4) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
7) All plates are 3x4 MT20 unless otherwise indicated.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 16. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	D4	Hip	1	1	Job Reference (optional) I52488904

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:14:45 Page: 1
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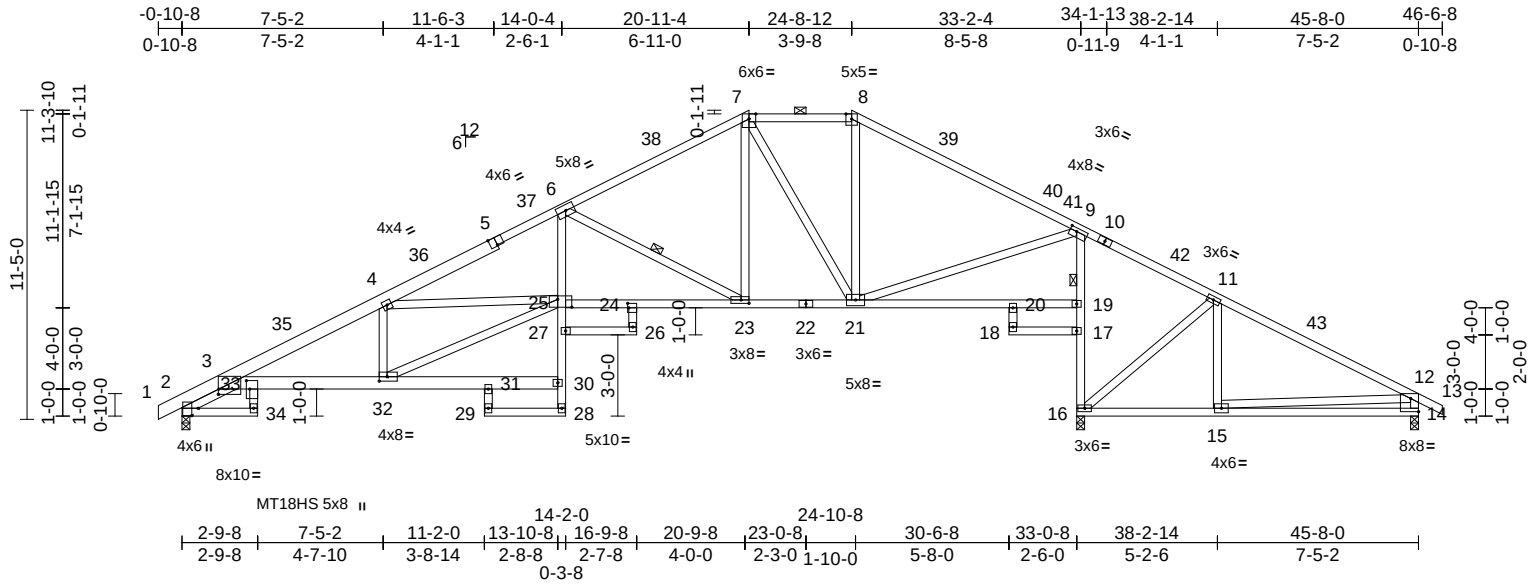

MT18HS 5x8

2-9-8	7-5-2	11-2-0	13-10-8	16-9-8	20-9-8	23-0-8	30-6-8	33-0-8	38-2-14	45-8-0
2-9-8	4-7-10	3-8-14	2-8-8	2-7-8	4-0-0	2-3-0	5-8-0	2-6-0	5-2-6	7-5-2

14-2-0 24-10-8
0-3-8 1-10-0

Scale = 1:85.1

Plate Offsets (X, Y): [2:0-3-4,0-2-13], [3:0-0-4,0-2-6], [5:0-3-0,Edge], [9:0-3-0,0-1-8], [14:Edge,0-5-13], [23:0-3-8,0-1-8], [24:0-2-0,0-0-8], [25:0-6-4,0-3-8], [32:0-3-8,0-2-0], [33:0-3-12,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.28	25	>999	240	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.50	26-27	>795	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.25	14	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 283 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E *Except* 7-8,10-13:2x4 SP No.2, 1-5:2x6 SPF No.2

BOT CHORD 2x4 SP No.2 *Except* 34-33,31-29,26-24,25-22,20-18:2x4 SP 1650F 1.5E, 3-30:2x6 SP 2400F 2.0E, 28-6:2x4 SPF No.3

WEBS 2x4 SPF No.3 *Except* 32-25,14-12:2x4 SP No.2

SLIDER Left 2x4 SP No.2 -- 2-1-6

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-9-12 oc purlins, except end verticals, and 2-0-0 oc purlins (4-5-11 max.): 7-8.

BOT CHORD Rigid ceiling directly applied or 3-11-4 oc bracing. Except:

1 Row at midpt 9-17

WEBS 1 Row at midpt 6-23

REACTIONS (lb/size) 2=1166/0-3-8, 14=435/0-3-8, 16=1610/0-3-8

Max Horiz 2=199 (LC 20)

Max Uplift 2=-291 (LC 16), 14=-226 (LC 17), 16=-132 (LC 17)

Max Grav 2=1541 (LC 2), 14=599 (LC 57), 16=2115 (LC 41)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/0, 2-3=-1381/263, 3-4=-3319/666, 4-6=-3978/779, 6-7=-1981/432, 7-8=-1320/394, 8-9=-1630/381, 9-11=-92/293, 11-12=-578/301, 12-13=0/34, 12-14=-533/266

BOT CHORD 2-34=-159/544, 33-34=-9/105, 3-33=-526/2408, 32-33=-685/2952, 31-32=-60/164, 30-31=-86/198, 29-31=0/52, 28-29=-35/25, 28-30=0/56, 27-30=0/99, 25-27=0/147, 6-25=-195/1360, 26-27=-77/228, 24-26=-13/82, 24-25=-539/3241, 23-24=-617/3468, 21-23=-135/1644, 20-21=-71/110, 19-20=-41/270, 18-20=-31/1, 17-18=-201/0, 16-17=-1779/135, 17-19=-1701/166, 9-19=-1661/188, 15-16=-160/412, 14-15=-226/500

WEBS 4-32=-860/297, 25-32=-686/3064, 6-23=-2052/539, 7-23=-208/1092, 7-21=-751/177, 8-21=-65/359, 9-21=-32/1318, 11-16=-596/183, 11-15=0/304, 12-15=-102/65, 4-25=0/591

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 20-11-4, Exterior(2E) 20-11-4 to 24-8-12, Exterior(2R) 24-8-12 to 31-9-10, Interior (1) 31-9-10 to 46-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) All plates are 3x4 MT20 unless otherwise indicated.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 16, and 14. This connection is for uplift only and does not consider lateral forces.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

June 14,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	D4	Hip	1	1	I52488904

Job Reference (optional)

13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	D5	Hip	1	1	Job Reference (optional) I52488905

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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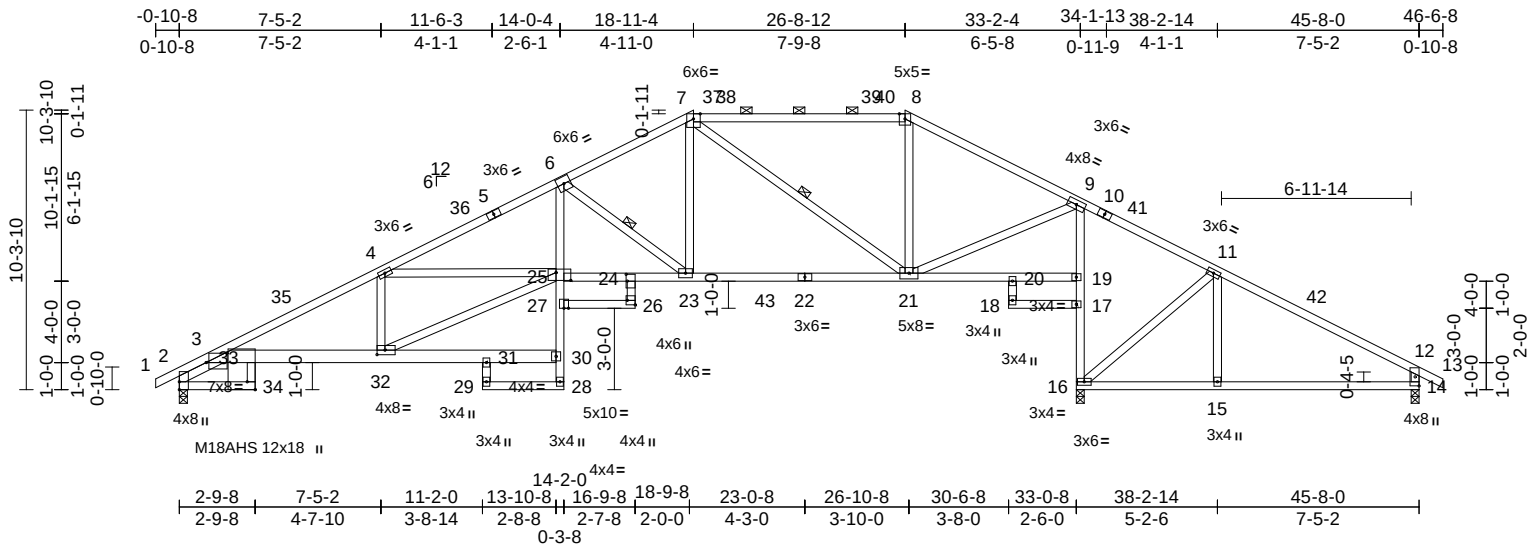

Scale = 1:84.9

Plate Offsets (X, Y): [3:0-9-4,0-4-3], [24:0-3-0,0-0-8], [25:0-6-8,0-3-8], [26:Edge,0-3-8], [32:0-3-8,0-2-0], [34:Edge,0-3-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.40	21-23	>989	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.77	21-23	>515	180	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.26	14	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 267 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E

BOT CHORD 2x4 SP No.2 *Except* 34-33,31-29,26-24,20-18,22-19:2x4 SP 1650F 1.5E, 3-30:2x6 SP 2400F 2.0E, 25-22:2x4 SP 2400F 2.0E, 9-16:2x4 SPF No.3

WEBS 2x4 SPF No.3 *Except* 14-12,32-25:2x4 SP No.2

SLIDER Left 2x4 SP No.2 -- 1-9-6

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-7-6 max.): 7-8.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 28-29,20-21,18-20,17-18
3-4-13 oc bracing: 16-17.

WEBS 1 Row at midpt 6-23, 7-21

REACTIONS (lb/size) 2=1183/0-3-8, 14=448/0-3-8, 16=1620/0-3-8
Max Horiz 2=177 (LC 16)
Max Uplift 2=-279 (LC 16), 14=-216 (LC 17), 16=-122 (LC 17)
Max Grav 2=1663 (LC 3), 14=611 (LC 57), 16=2237 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-7/0, 2-3=-1655/288, 3-4=-3532/617, 4-6=-4242/734, 6-7=-2652/490, 7-8=-1426/371, 8-9=-1677/367, 9-11=-123/272, 11-12=-602/285, 12-13=0/34, 12-14=-545/258

BOT CHORD 2-34=-182/641, 33-34=-15/146, 3-33=-430/2510, 32-33=-612/3139, 31-32=-18/263, 30-31=-34/304, 29-31=0/50, 28-29=-47/17, 28-30=0/60, 27-30=0/156, 25-27=-6/129, 6-25=-218/1381, 26-27=-37/372, 24-26=0/149, 24-25=-509/3293, 23-24=-546/3666, 21-23=-153/2290, 20-21=-42/33, 19-20=-45/88, 18-20=-4/27, 17-18=-74/29, 16-17=-1783/166, 17-19=-1703/178, 9-19=-1660/184, 15-16=-149/446, 14-15=-149/446

WEBS 6-23=-1732/483, 7-23=-195/1466, 7-21=-1123/196, 8-21=-12/371, 9-21=-61/1575, 11-16=-623/195, 11-15=0/295, 4-32=-825/275, 25-32=-652/3159, 4-25=-35/609

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 18-11-4, Exterior(2R) 18-11-4 to 26-0-2, Interior (1) 26-0-2 to 26-8-12, Exterior(2R) 26-8-12 to 33-9-10, Interior (1) 33-9-10 to 46-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) All plates are 3x4 MT20 unless otherwise indicated.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
11) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 16, and 14. This connection is for uplift only and does not consider lateral forces.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 14,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	D5	Hip	1	1	Job Reference (optional) I52488905

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	D6	Hip	1	1	I52488906

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/21/2022

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:14:48 Page: 1
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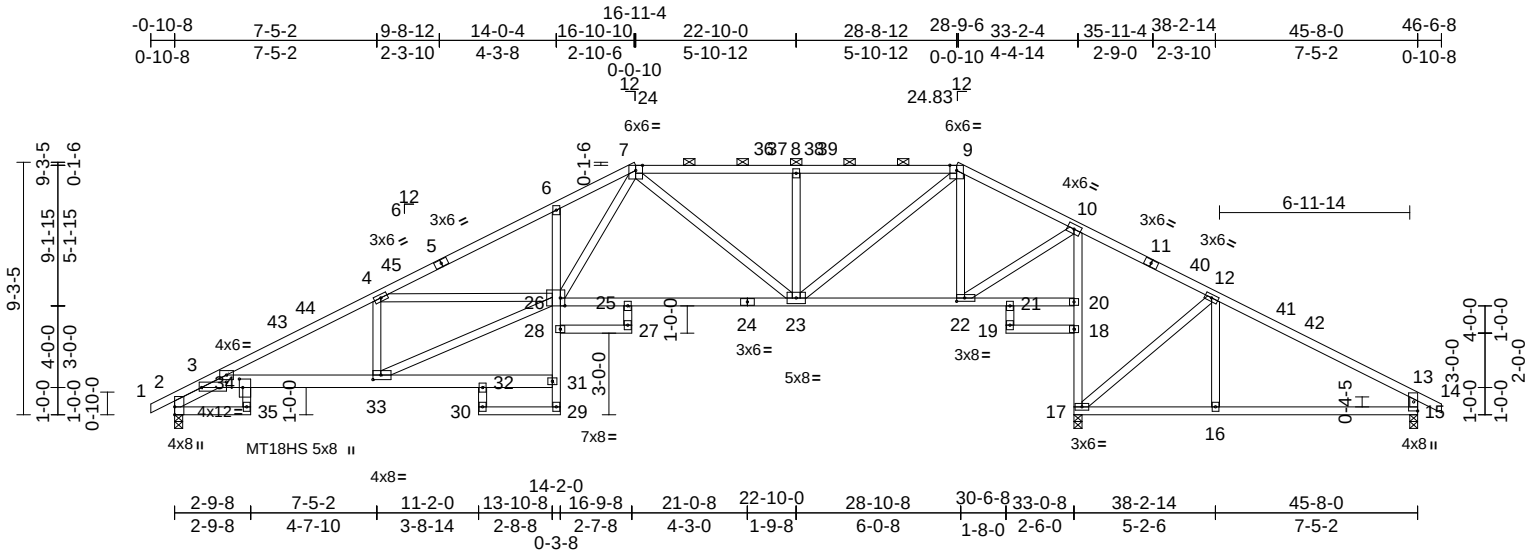

Scale = 1:84.7

Plate Offsets (X, Y): [3:0-11-0,0-2-7], [9:0-3-0,0-2-4], [22:0-3-8,0-1-8], [26:0-2-0,Edge], [33:0-3-8,0-2-0], [34:0-3-12,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.30	23-25	>999	240	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.61	23-25	>658	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.24	15	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 265 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP 1650F 1.5E *Except* 7-9:2x4 SP No.2, 11-14,5-1:2x4 SP 2400F 2.0E

BOT CHORD 2x4 SP No.2 *Except* 35-34,32-30,27-25,21-19:2x4 SP 1650F 1.5E, 3-31:2x6 SP 2400F 2.0E, 29-6,10-17:2x4 SPF No.3

WEBS 2x4 SPF No.3 *Except* 15-13,33-26:2x4 SP No.2

SLIDER Left 2x4 SP No.2 -- 1-9-6

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-3-12 max.): 7-9.

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

REACTIONS (lb/size) 2=1189/0-3-8, 15=432/0-3-8, 17=1669/0-3-8
Max Horiz 2=158 (LC 20)
Max Uplift 2=-266 (LC 16), 15=-214 (LC 17), 17=-99 (LC 17)
Max Grav 2=1538 (LC 2), 15=593 (LC 57), 17=2108 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 7-8=-2188/488, 8-9=-2188/488, 9-10=-1257/352, 10-12=-98/272, 12-13=-575/285, 13-14=0/34, 13-15=-529/255, 1-2=-7/0, 2-3=-1522/281, 3-4=-3278/587, 4-6=-3905/636, 6-7=-3801/708

BOT CHORD 2-35=-161/568, 34-35=-12/117, 3-34=-410/2338, 33-34=-571/2906, 32-33=-58/32, 31-32=-87/40, 30-32=0/54, 29-30=-8/30, 29-31=0/55, 28-31=0/84, 26-28=0/186, 6-26=-344/188, 27-28=-73/65, 25-27=-9/20, 25-26=-194/2376, 23-25=-260/2441, 22-23=-92/1083, 21-22=-75/14, 20-21=-14/51, 19-21=-25/21, 18-19=-119/27, 17-18=-1697/166, 18-20=-1622/176, 10-20=-1601/180, 16-17=-150/414, 15-16=-150/414

WEBS 7-26=-382/1914, 7-23=-492/140, 8-23=-616/225, 9-23=-217/1459, 9-22=-700/131, 10-22=-118/1342, 12-17=-605/197, 12-16=0/299, 4-33=-869/254, 26-33=-572/3142, 4-26=-17/571

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 16-11-4, Exterior(2R) 16-11-4 to 24-0-2, Interior (1) 24-0-2 to 28-8-12, Exterior(2R) 28-8-12 to 35-9-10, Interior (1) 35-9-10 to 46-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) All plates are 3x4 MT20 unless otherwise indicated.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 17, and 15. This connection is for uplift only and does not consider lateral forces.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 14,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	D6	Hip	1	1	Job Reference (optional) I52488906

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	D7	Hip	1	1	I52488907

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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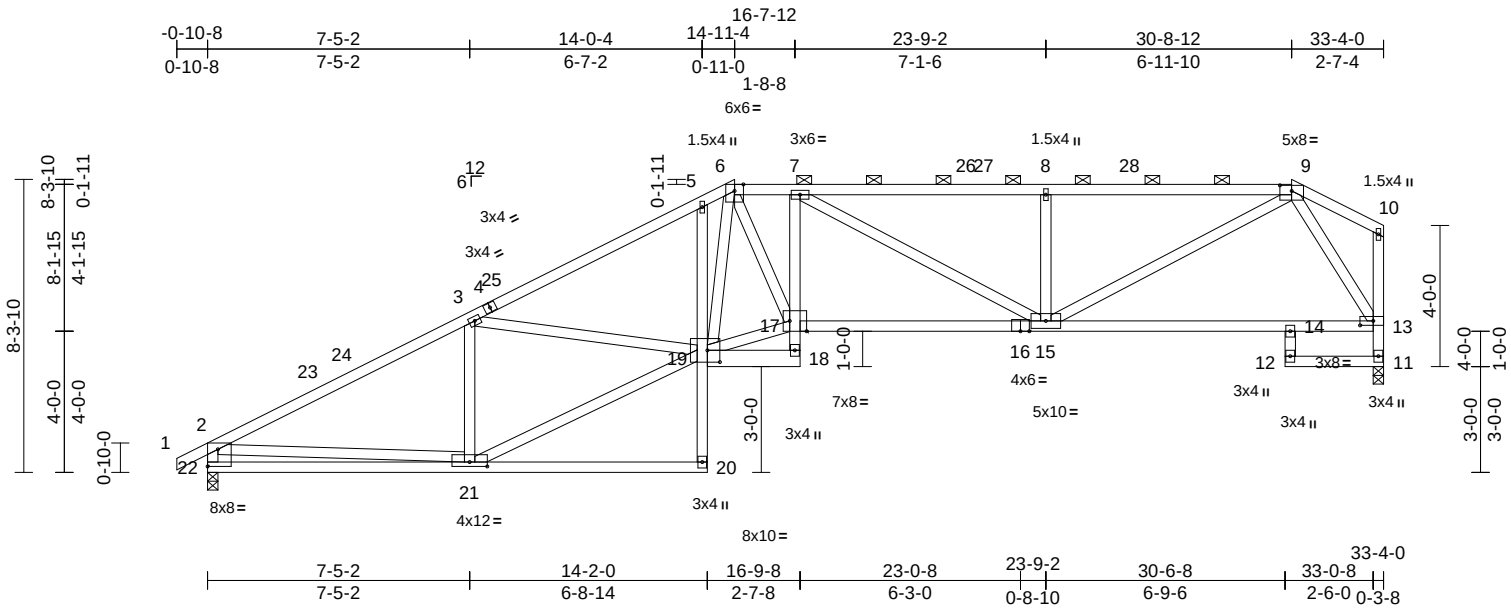

Scale = 1:65.3

Plate Offsets (X, Y): [9:0-4-0,0-1-15], [13:0-4-8,0-1-8], [17:0-5-12,Edge], [19:0-4-4,0-4-0], [21:0-6-0,0-1-8], [22:Edge,0-5-13]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.25	14-15	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.53	14-15	>747	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.24	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 199 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 4-6:2x4 SP 2400F 2.0E, 6-9:2x4 SP 1650F 1.5E

BOT CHORD 2x4 SP No.2 *Except* 19-18:2x6 SPF No.2, 18-7,14-12:2x4 SPF No.3

WEBS 2x4 SPF No.3 *Except* 19-17,11-10:2x4 SP No.2, 22-2:2x4 SP 2400F 2.0E

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-4-15 max.): 6-9.

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

REACTIONS (lb/size) 11=1226/0-3-8, 22=1218/0-3-8
Max Horiz 22=273 (LC 13)
Max Uplift 11=-228 (LC 13), 22=-233 (LC 16)
Max Grav 11=1486 (LC 2), 22=1559 (LC 2)

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

TOP CHORD 2-23=-2400/310, 23-24=-2276/315, 3-24=-2268/333, 3-4=-3134/561, 4-25=-3113/566, 5-25=-3039/596, 5-6=-2989/675, 6-7=-3219/657, 7-26=-2681/522, 26-27=-2681/522, 8-27=-2681/522, 8-28=-2683/524, 9-28=-2681/524, 2-22=-1487/313, 11-13=-1436/292

BOT CHORD 21-22=-497/732, 5-19=-307/234, 7-17=-295/301, 16-17=-697/3257, 15-16=-697/3257, 14-15=-225/883, 13-14=-186/952

WEBS 3-21=-892/319, 19-21=-531/2195, 3-19=-185/752, 6-19=-330/363, 17-19=-575/2706, 6-17=-287/1374, 7-15=-729/180, 8-15=-677/250, 9-15=-406/2075, 9-13=-1507/411, 2-21=-8/1301

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 14-11-4, Exterior(2R) 14-11-4 to 22-0-2, Interior (1) 22-0-2 to 30-8-12, Exterior(2E) 30-8-12 to 33-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 22 and 11. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	D8	Roof Special	1	1	Job Reference (optional) I52488908

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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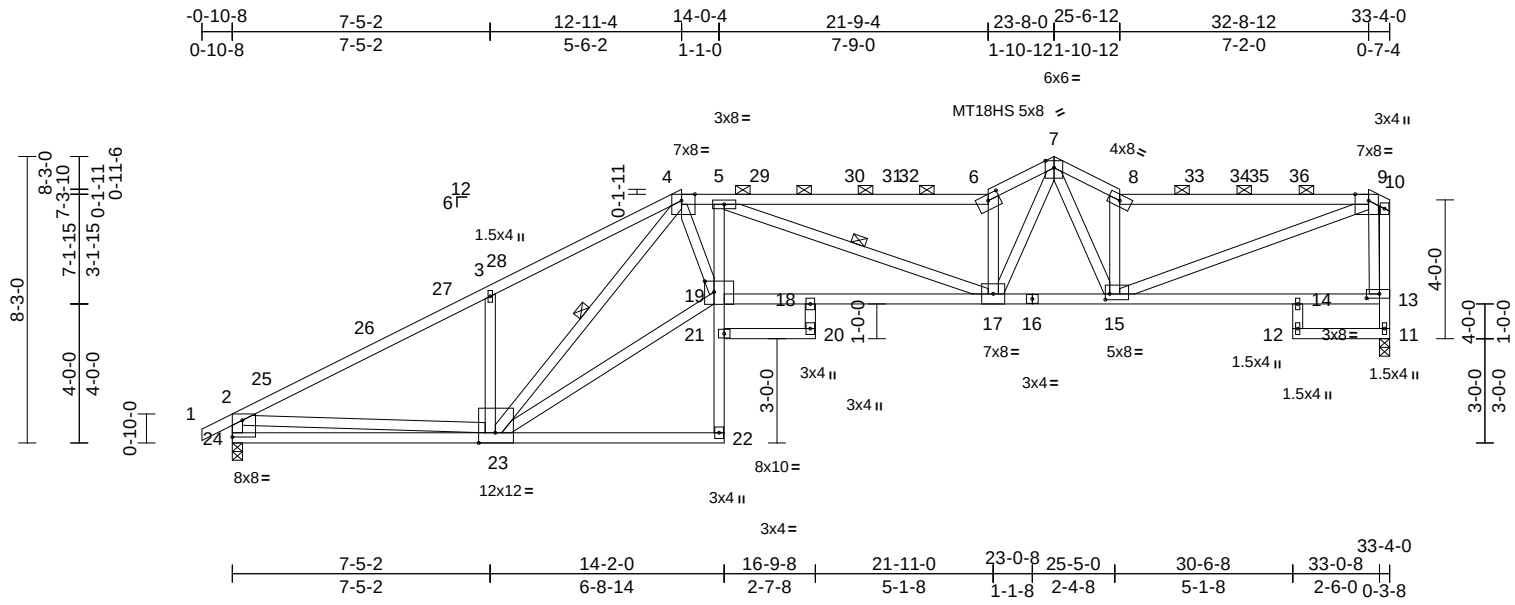

Scale = 1:66.4

Plate Offsets (X, Y): [4:0-4-10,Edge], [6:0-4-0,0-2-0], [9:0-4-10,Edge], [13:0-4-8,0-1-8], [15:0-1-8,0-2-0], [19:0-3-4,0-3-12], [23:0-5-12,Edge], [24:Edge,0-5-13]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.39	5	>999	240	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.71	17-18	>561	180	MT18HS	197/144
TCDL	10.0	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.40	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 206 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 4-6,8-9:2x4 SP 2400F 2.0E

BOT CHORD 2x4 SP No.2 *Except* 22-5,20-18,14-12:2x4 SPF No.3, 19-16:2x4 SP 1650F 1.5E

WEBS 2x4 SPF No.3 *Except* 23-19,19-4,17-7,15-7,15-9,24-2,11-10:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-6-11 oc purlins, except end verticals, and 2-0-0 oc purlins (2-11-12 max.): 4-6, 8-9.

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

WEBS 1 Row at midpt 4-23, 5-17

REACTIONS (lb/size) 11=1227/0-3-8, 24=1219/0-3-8
Max Horiz 24=272 (LC 13)
Max Uplift 11=-194 (LC 16), 24=-302 (LC 16)
Max Grav 11=1486 (LC 2), 24=1559 (LC 2)

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

TOP CHORD 2-25=-2430/417, 25-26=-2313/433, 26-27=-2306/435, 3-27=-2225/452, 3-28=-2377/565, 4-28=-2362/594, 4-5=-4333/985, 5-29=-3819/769, 29-30=-3817/769, 30-31=-3817/769, 31-32=-3816/769, 6-32=-3816/770, 6-7=-4243/884, 7-8=-3413/702, 8-33=-3068/610, 33-34=-3068/610, 34-35=-3068/610, 35-36=-3068/610, 9-36=-3068/610, 2-24=-1484/341, 11-13=-1442/337, 10-13=-200/297

BOT CHORD 23-24=-457/691, 5-19=-820/328, 18-19=-922/4144, 17-18=-1025/4340, 16-17=-578/2564, 15-16=-578/2564, 14-15=-122/331, 13-14=-117/381

WEBS 3-23=-544/285, 4-23=-1961/458, 19-23=-930/3733, 4-19=-619/3010, 6-17=-2286/555, 7-17=-643/2807, 7-15=-183/1016, 8-15=-1918/469, 9-15=-597/2949, 2-23=-104/1447, 5-17=-746/231, 9-13=-1634/566

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 12-11-4, Exterior(2R) 12-11-4 to 17-11-4, Interior (1) 17-11-4 to 23-8-0, Exterior(2E) 23-8-0 to 25-6-12, Interior (1) 25-6-12 to 32-8-12, Exterior(2E) 32-8-12 to 33-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 24 and 11. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 14,2022

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	E1	Roof Special	1	1	Job Reference (optional) I52488909

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:14:49 Page: 1
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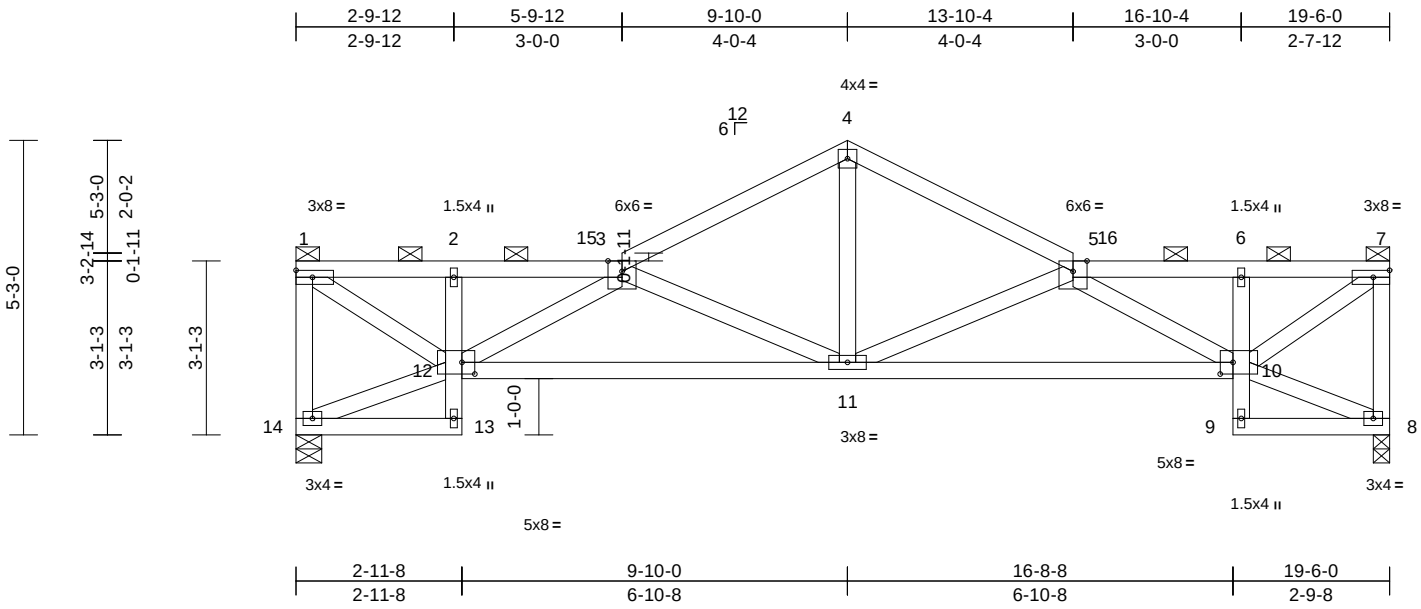

Scale = 1:41.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.08	11	>999	240	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.17	11-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.10	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 104 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 13-2,6-9:2x4 SPF No.3
WEBS 2x4 SPF No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-8-14 oc purlins, except end verticals, and 2-0-0 oc purlins (5-5-3 max.): 1-3, 5-7.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 8=706/0-3-8, 14=707/0-5-8
Max Horiz 14=142 (LC 13)
Max Uplift 8=-142 (LC 17), 14=-143 (LC 16)
Max Grav 8=864 (LC 2), 14=864 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-14=-826/240, 1-2=-1096/347, 2-3=-1144/354, 3-4=-1291/338, 4-5=-1292/348, 5-6=-1086/257, 6-7=-1037/252, 7-8=-827/237
BOT CHORD 13-14=-34/37, 12-13=0/52, 2-12=-289/112, 11-12=-627/1826, 10-11=-547/1794, 9-10=0/49, 6-10=-281/111, 8-9=-25/34
WEBS 12-14=-140/166, 1-12=-353/1311, 3-12=-834/253, 3-11=-806/342, 4-11=-156/824, 5-11=-770/260, 5-10=-858/273, 8-10=-59/78, 7-10=-346/1268

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 5-1-12, Interior (1) 5-1-12 to 9-10-0, Exterior(2E) 9-10-0 to 13-10-4, Interior (1) 13-10-4 to 19-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14 and 8. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	E2	Roof Special	1	1	Job Reference (optional) I52488910

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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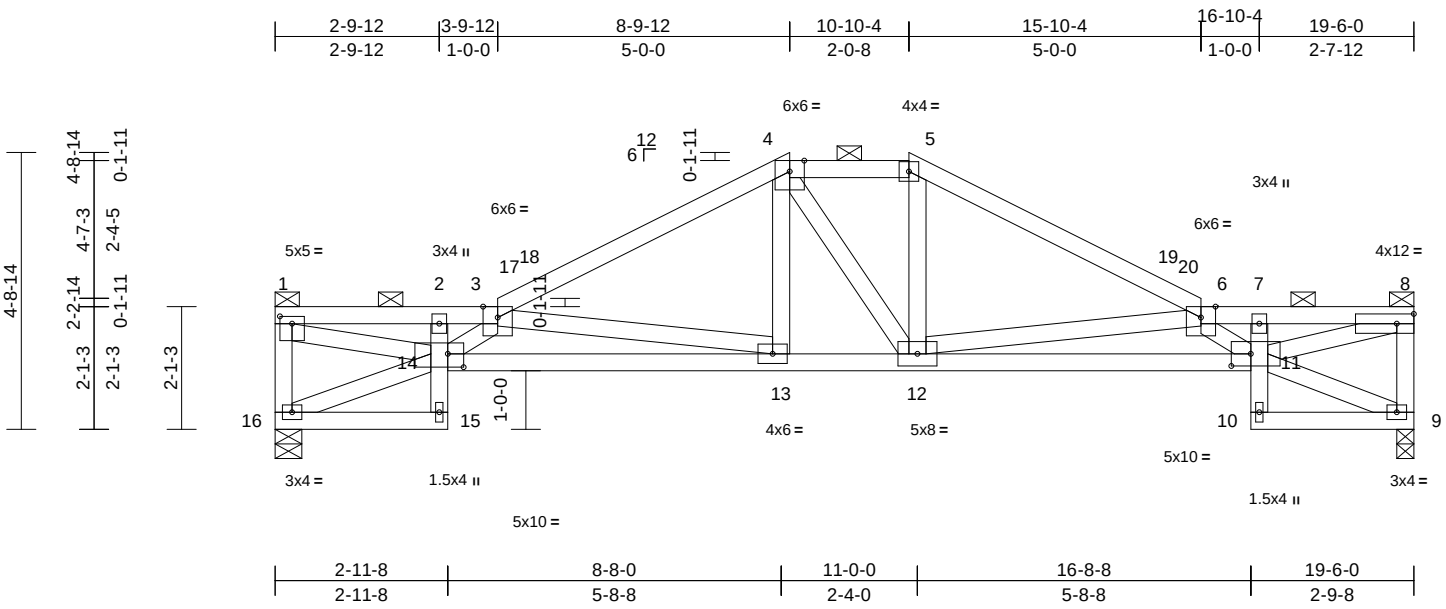

Scale = 1:39.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.16	13-14	>999	240	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.31	13-14	>748	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.22	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 103 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 15-2,7-10:2x4 SPF No.3
WEBS 2x4 SPF No.3

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

REACTIONS (lb/size) 9=696/0-3-8, 16=697/0-5-8
Max Horiz 16=-107 (LC 12)
Max Uplift 9=-128 (LC 17), 16=-129 (LC 16)
Max Grav 9=864 (LC 2), 16=864 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-16=-774/235, 1-2=-2115/637, 2-3=-2364/675, 3-4=-1485/416, 4-5=-1256/402, 5-6=-1481/407, 6-7=-2238/537, 7-8=-2008/513, 8-9=-777/222
BOT CHORD 15-16=-72/203, 14-15=0/52, 2-14=-228/68, 13-14=-967/2901, 12-13=-354/1260, 11-12=-799/2803, 10-11=0/49, 7-11=-212/69, 9-10=-56/186
WEBS 14-16=-197/136, 1-14=-621/2171, 3-14=-802/305, 3-13=-1651/621, 4-13=-64/387, 4-12=-155/146, 5-12=-66/378, 6-12=-1555/470, 6-11=-831/295, 9-11=-163/76, 8-11=-551/2074

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 3-9-12, Interior (1) 3-9-12 to 8-9-12, Exterior(2E) 8-9-12 to 15-10-4, Interior (1) 15-10-4 to 19-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 16 and 9. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	E3	Hip	1	1	Job Reference (optional) I52488911

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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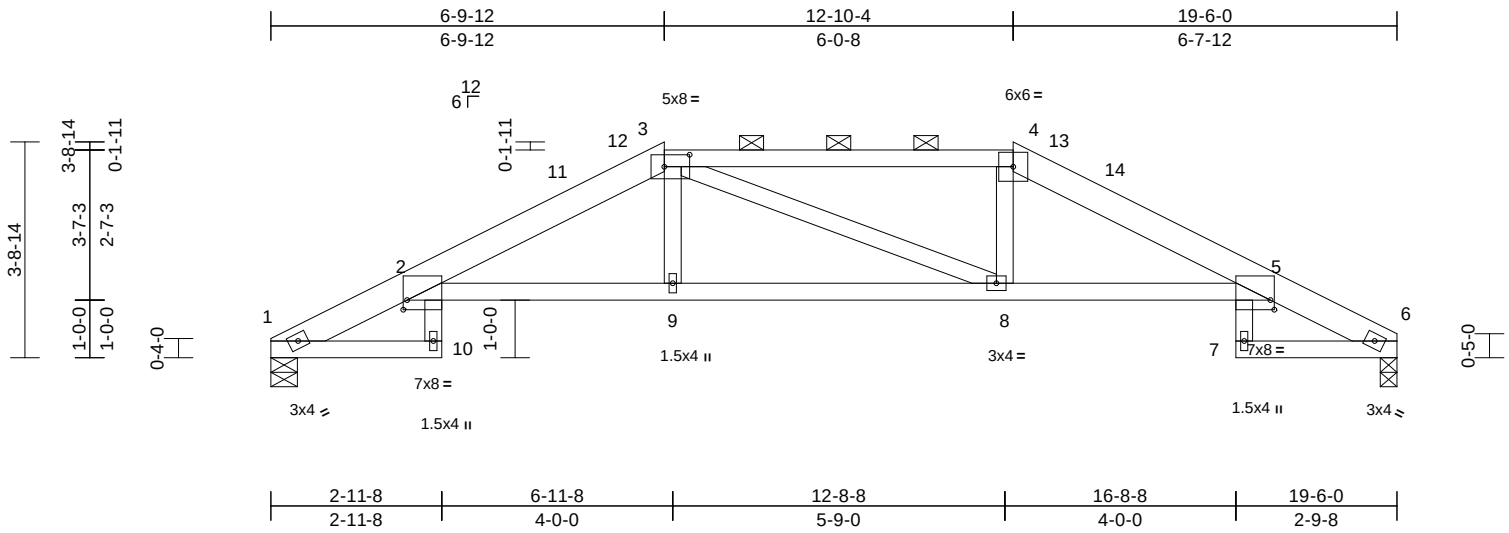

Scale = 1:39.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.24	10	>939	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.44	10	>517	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.40	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 88 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP 2400F 2.0E *Except* 3-4:2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 10-2,5-7:2x4 SPF No.3
WEBS 2x4 SPF No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-5-11 oc purlins, except 2-0-0 oc purlins (3-4-5 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 1=689/0-5-8, 6=689/0-3-8
Max Horiz 1=63 (LC 16)
Max Uplift 1=-98 (LC 16), 6=-97 (LC 17)
Max Grav 1=872 (LC 2), 6=872 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-387/125, 2-3=-1822/414, 3-4=-1705/432, 4-5=-1814/407, 5-6=-401/121
BOT CHORD 1-10=-20/0, 2-10=0/72, 2-9=-300/1708, 8-9=-296/1716, 5-8=-282/1696, 5-7=0/70, 6-7=-21/0
WEBS 3-9=0/237, 3-8=-177/157, 4-8=0/239

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-2-12 to 5-2-12, Interior (1) 5-2-12 to 6-9-12, Exterior(2E) 6-9-12 to 19-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 6. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	E4	Hip	1	1	Job Reference (optional) I52488912

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:04:52 Page: 1
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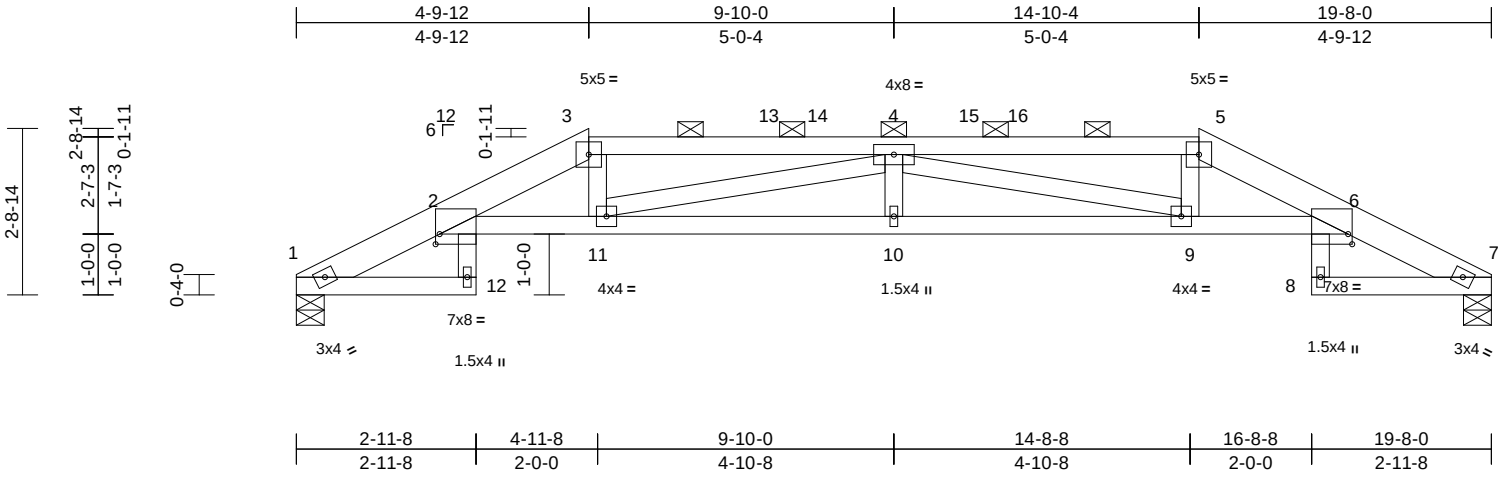

Scale = 1:37.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.30	10	>761	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.55	10	>419	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.38	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 87 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP 2400F 2.0E *Except* 3-5:2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 12-2,6-8:2x4 SPF No.3, 2-6:2x4 SP 1650F 1.5E
WEBS 2x4 SPF No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-1-10 oc purlins, except 2-0-0 oc purlins (3-1-9 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 1=712/0-5-8, 7=712/0-5-8
Max Horiz 1=44 (LC 16)
Max Uplift 1=-95 (LC 13), 7=-95 (LC 12)
Max Grav 1=876 (LC 2), 7=876 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-389/116, 2-3=-2461/532, 3-4=-2446/551, 4-5=-2446/552, 5-6=-2461/532, 6-7=-389/116
BOT CHORD 1-12=-20/0, 2-12=0/72, 2-11=-444/2408, 10-11=-614/3324, 9-10=-614/3324, 6-9=-444/2408, 6-8=0/72, 7-8=-20/0
WEBS 3-11=-21/373, 4-11=-979/242, 4-10=0/180, 4-9=-979/240, 5-9=-21/373

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-2-12 to 4-9-12, Exterior(2R) 4-9-12 to 11-10-10, Interior (1) 11-10-10 to 14-10-4, Exterior(2E) 14-10-4 to 19-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 7. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	E5	Hip Girder	1	1	Job Reference (optional) I52488913

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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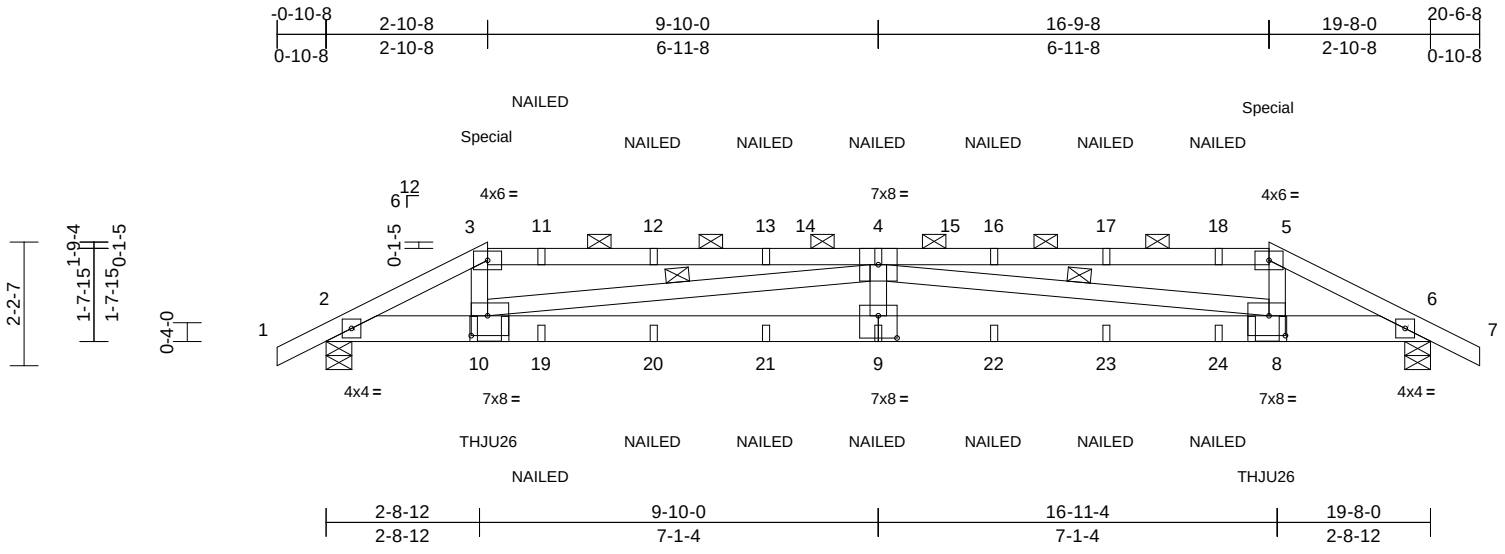

Scale = 1:41

Plate Offsets (X, Y): [8:0-3-8,0-4-4], [9:0-4-0,0-4-12], [10:0-3-8,0-4-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.33	9	>709	240	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.54	9	>424	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.93	Horz(CT)	0.08	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 88 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 3-5:2x4 SP 1650F 1.5E
BOT CHORD 2x6 SPF No.2
WEBS 2x4 SPF No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-5-9 oc purlins, except
2-0-0 oc purlins (3-8-15 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 6-4-11 oc bracing.
WEBS 1 Row at midpt 4-10, 4-8

REACTIONS (lb/size) 2=1020/0-5-8, 6=1021/0-5-8
Max Horiz 2=-34 (LC 65)
Max Uplift 2=-283 (LC 16), 6=-284 (LC 17)
Max Grav 2=1089 (LC 56), 6=1089 (LC 57)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/38, 2-3=-2298/585, 3-4=-2001/542, 4-5=-2002/544, 5-6=-2299/586, 6-7=0/38
BOT CHORD 2-10=-516/2067, 8-10=-1338/4648, 6-8=-504/2068
WEBS 3-10=-34/628, 5-8=-33/627, 4-9=0/266, 4-10=-2692/852, 4-8=-2691/851

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-10-8, Exterior(2R) 2-10-8 to 9-10-0, Interior (1) 9-10-0 to 16-9-8, Exterior(2E) 16-9-8 to 20-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Use Simpson Strong-Tie THJU26 (SGL & SGL SHORT RC 1-PLY) or equivalent at 2-10-14 from the left end to connect truss(es) to back face of bottom chord, skewed 0.0 deg.to the left, sloping 0.0 deg. down.
13) Use Simpson Strong-Tie THJU26 (SGL & SGL SHORT LC 1-PLY) or equivalent at 16-9-2 from the left end to connect truss(es) to back face of bottom chord, skewed 0.0 deg.to the left, sloping 0.0 deg. down.
14) Fill all nail holes where hanger is in contact with lumber.
15) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
16) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 111 lb down and 155 lb up at 2-10-8, and 111 lb down and 155 lb up at 16-9-8 on top chord. The design/selection of such connection device(s) is the responsibility of others.
17) 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

June 14,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	E5	Hip Girder	1	1	Job Reference (optional) I52488913

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-48, 3-5=-58, 5-7=-48, 2-6=-20
Concentrated Loads (lb)
Vert: 3=-52 (B), 5=-52 (B), 10=-13 (B), 8=-13 (B), 4=-84 (B), 9=-5 (B), 11=-19 (B), 12=-19 (B), 13=-84 (B), 16=-84 (B), 17=-19 (B), 18=-19 (B), 19=-6 (B), 20=-6 (B), 21=-5 (B), 22=-5 (B), 23=-6 (B), 24=-6 (B)

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	G1	Half Hip	1	1	Job Reference (optional) I52488914

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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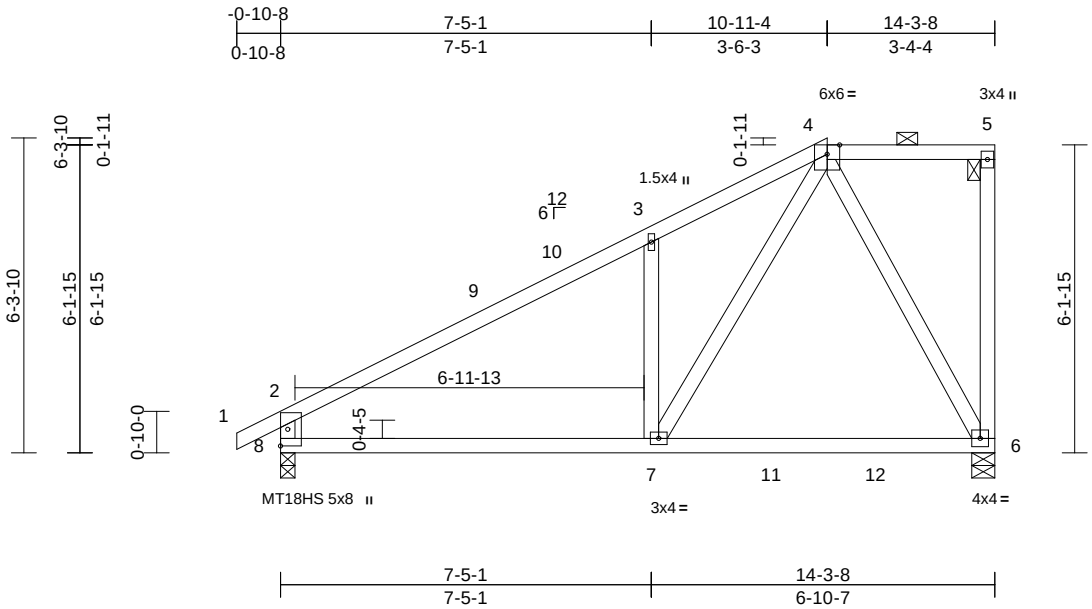

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.09	6-7	>999	240	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.15	6-7	>999	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 72 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-10-3 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 9-6-11 oc bracing.

REACTIONS (lb/size) 6=501/0-5-8, 8=528/0-3-8
Max Horiz 8=269 (LC 13)
Max Uplift 6=-121 (LC 13), 8=-130 (LC 16)
Max Grav 6=669 (LC 3), 8=799 (LC 38)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-870/181, 3-4=-822/315, 4-5=-116/121, 5-6=-134/91, 2-8=-732/272
BOT CHORD 7-8=-364/687, 6-7=-211/278
WEBS 3-7=-506/347, 4-7=-300/807, 4-6=-532/304

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 10-11-4, Exterior(2E) 10-11-4 to 14-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6 and 8. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	G2	Half Hip	1	1	Job Reference (optional) I52488915

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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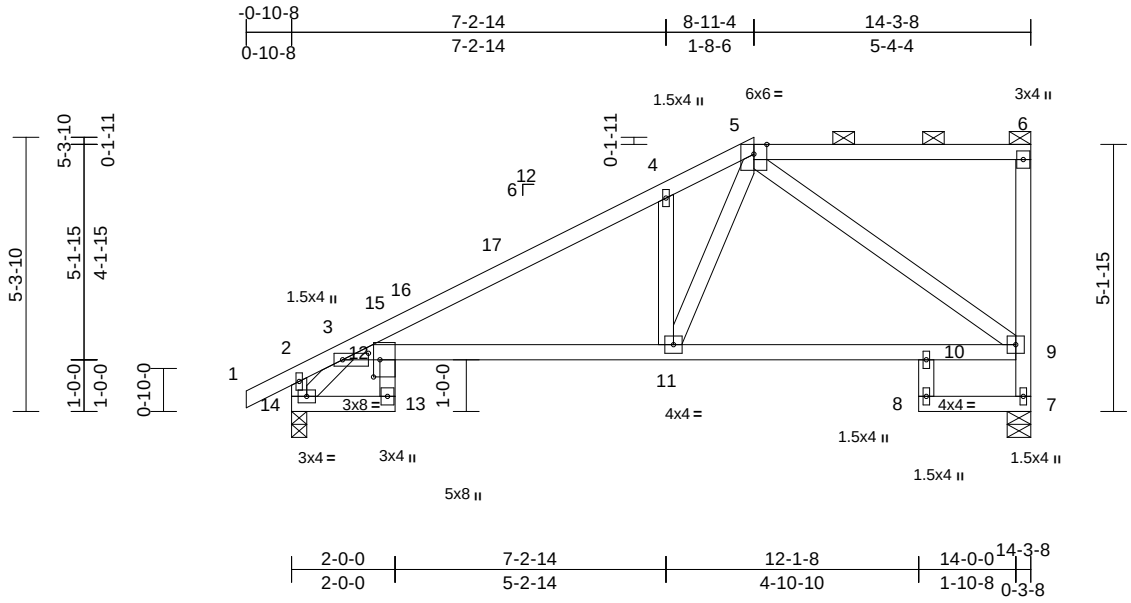

Scale = 1:44.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	0.21	11-12	>811	240	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.34	11-12	>499	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.18	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 74 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 13-12,10-8:2x4 SPF No.3, 3-9:2x4 SP 1650F 1.5E
WEBS 2x4 SPF No.3 *Except* 14-2:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-4-13 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 7=515/0-5-8, 14=534/0-3-8
Max Horiz 14=224 (LC 13)
Max Uplift 7=-128 (LC 13), 14=-127 (LC 16)
Max Grav 7=627 (LC 2), 14=766 (LC 38)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-124/52, 3-4=-1017/256, 4-5=-1040/419, 5-6=-84/73, 7-9=-602/221, 6-9=-217/110, 2-14=-375/212
BOT CHORD 13-14=-280/326, 12-13=-59/85, 3-12=-187/541, 11-12=-468/848, 10-11=-316/552, 9-10=-314/552, 8-10=0/23, 7-8=-14/12
WEBS 4-11=-541/357, 5-11=-382/871, 5-9=-660/312, 3-14=-566/209

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 8-11-4, Exterior(2E) 8-11-4 to 14-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7 and 14. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	G3	Half Hip	1	1	Job Reference (optional) I52488916

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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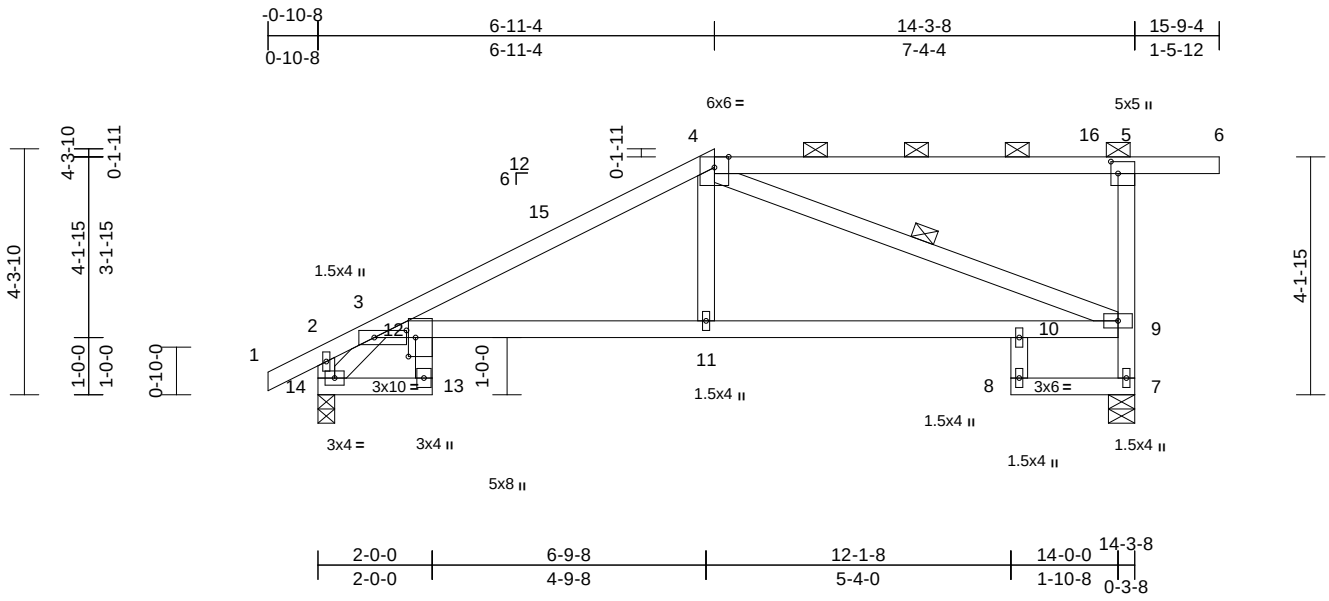

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Plate Offsets (X, Y): [3:0-6-12,0-1-8], [5:0-2-8,0-1-8], [12:0-4-0,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	0.19	11-12	>902	240	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.30	11-12	>561	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.17	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 71 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 13-12,10-8:2x4 SPF No.3, 3-9:2x4 SP 1650F 1.5E
WEBS 2x4 SPF No.3 *Except* 14-2:2x4 SP No.2

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

REACTIONS (lb/size) 7=625/0-5-8, 14=538/0-3-8
Max Horiz 14=179 (LC 13)
Max Uplift 7=-212 (LC 13), 14=-117 (LC 16)
Max Grav 7=782 (LC 37), 14=713 (LC 38)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-112/42, 3-4=-1023/256, 4-5=-120/80, 5-6=0/0, 7-9=-750/272, 5-9=-465/195, 2-14=-344/181
BOT CHORD 13-14=-266/324, 12-13=-54/82, 3-12=-107/564, 11-12=-374/867, 10-11=-374/855, 9-10=-356/879, 8-10=0/19, 7-8=-33/7
WEBS 4-11=0/353, 4-9=-823/351, 3-14=-577/208

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 6-11-4, Exterior(2R) 6-11-4 to 14-1-12, Interior (1) 14-1-12 to 15-9-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7 and 14. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	G4	Half Hip Girder	1	1	Job Reference (optional) I52488917

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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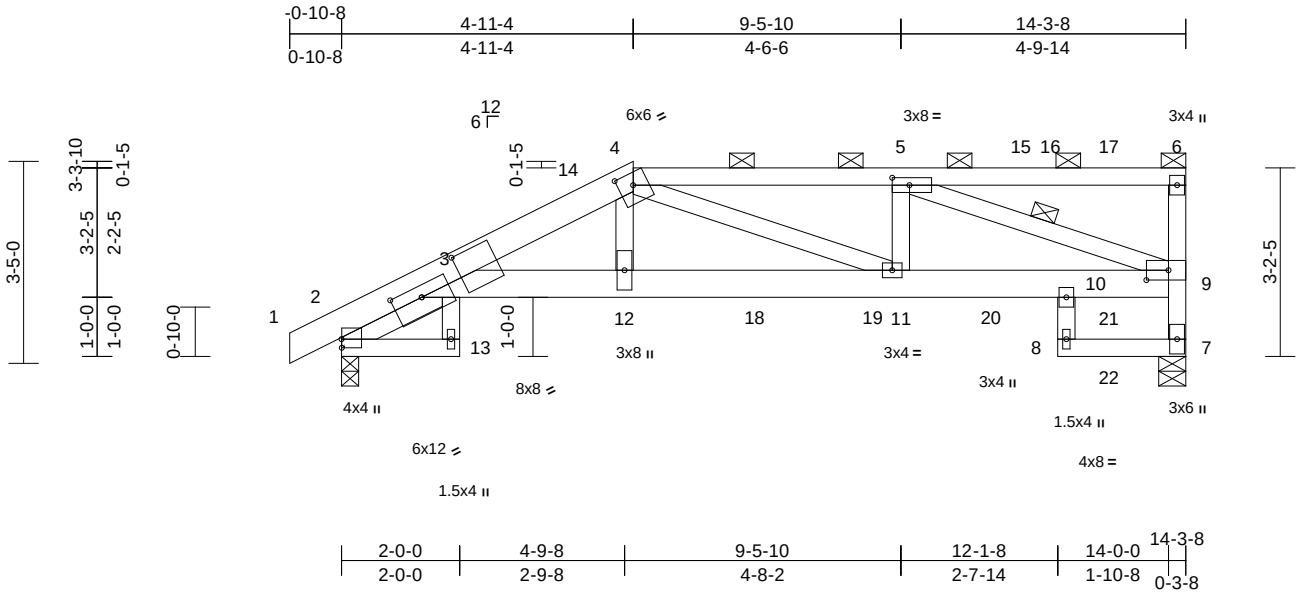

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Plate Offsets (X, Y): [2:0-1-12,0-0-1], [3:0-9-0,0-4-8], [3:0-6-0,0-2-5], [4:0-3-0,0-2-7], [5:0-3-8,0-1-8], [9:0-4-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	0.12	11-12	>999	240	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.19	11-12	>871	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.67	Horz(CT)	0.17	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 86 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP 2400F 2.0E *Except* 4-6:2x4 SP No.2

BOT CHORD 2x4 SP No.2 *Except* 13-3,10-8:2x4 SPF No.3, 3-9:2x6 SP 2400F 2.0E

WEBS 2x4 SPF No.3

SLIDER Left 2x4 SP No.2 -- 1-10-2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-11-11 oc purlins, except end verticals, and 2-0-0 oc purlins (3-4-6 max.): 4-6.

BOT CHORD Rigid ceiling directly applied or 9-4-1 oc bracing.

WEBS 1 Row at midpt 5-9

REACTIONS (lb/size) 2=1131/0-3-8, 7=1253/0-5-8
Max Horiz 2=129 (LC 13)
Max Uplift 2=-353 (LC 16), 7=-431 (LC 13)
Max Grav 2=1240 (LC 2), 7=1378 (LC 37)

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

TOP CHORD 2-3=-646/243, 3-14=-3039/1161, 4-14=-3007/1178, 4-5=-2584/980, 7-9=-1351/481

BOT CHORD 3-12=-1150/2794, 12-18=-1123/2718, 18-19=-1123/2718, 11-19=-1123/2718, 11-20=-922/2584, 10-20=-922/2584, 10-21=-924/2579, 9-21=-924/2579

WEBS 4-11=-369/216, 5-11=-177/630, 5-9=-2610/962, 4-12=-373/1008

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 4-11-4, Exterior(2R) 4-11-4 to 12-0-2, Interior (1) 12-0-2 to 14-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
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 3-06-00 tall by 2-00-00 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 431 lb uplift at joint 7 and 353 lb uplift at joint 2.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 14,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	G4	Half Hip Girder	1	1	Job Reference (optional) I52488917

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 134 lb down and 102 lb up at 13-0-0 on top chord, and 501 lb down and 225 lb up at 4-11-4, 215 lb down and 93 lb up at 7-0-0, 215 lb down and 93 lb up at 9-0-0, and 215 lb down and 93 lb up at 11-0-0, and 49 lb down at 13-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
13) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (lb/ft)
   Vert: 1-3=-48, 3-4=-48, 4-6=-58, 2-13=-20, 3-10=-20, 7-8=-20
   Concentrated Loads (lb)
   Vert: 12=-501 (B), 17=-105 (B), 18=-215 (B), 19=-215 (B), 20=-215 (B), 21=-40 (B)

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	H1	Hip Girder	1	1	I52488918 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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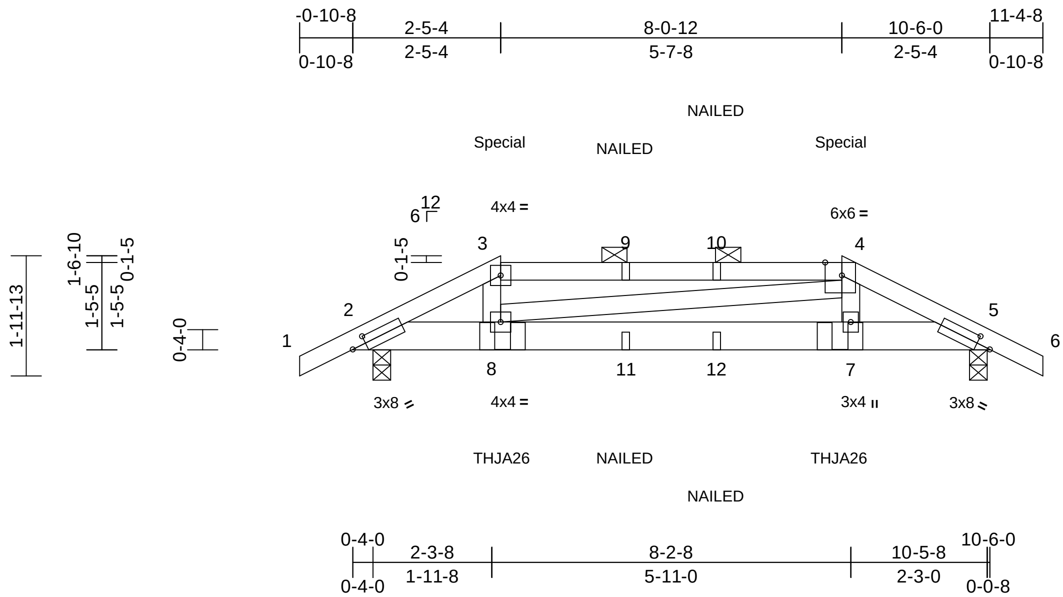

Scale = 1:38

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	0.06	7-8	>999	240	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.05	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.08	Horz(CT)	-0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 47 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-8-5 oc purlins, except 2-0-0 oc purlins (4-5-15 max.): 3-4.

BOT CHORD Rigid ceiling directly applied or 6-11-6 oc bracing.

REACTIONS (lb/size) 2=460/0-3-8, 5=460/0-3-8
Max Horiz 2=30 (LC 64)
Max Uplift 2=-208 (LC 13), 5=-208 (LC 12)
Max Grav 2=535 (LC 2), 5=535 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/38, 2-3=-914/1192, 3-4=-826/1067, 4-5=-956/1247, 5-6=0/38

BOT CHORD 2-8=-1005/833, 7-8=-1033/868, 5-7=-1075/877

WEBS 3-8=-312/202, 4-7=-311/200, 4-8=-49/69

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed; 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5 and 2. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Use Simpson Strong-Tie THJA26 (THJA26 on 1 ply, Right Hand Hip) or equivalent at 2-5-10 from the left end to connect truss(es) to back face of bottom chord.
13) Use Simpson Strong-Tie THJA26 (THJA26 on 1 ply, Left Hand Hip) or equivalent at 8-0-6 from the left end to connect truss(es) to back face of bottom chord.
14) Fill all nail holes where hanger is in contact with lumber.
15) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
16) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 85 lb down and 133 lb up at 2-5-4, and 85 lb down and 133 lb up at 8-0-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
17) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-48, 3-4=-58, 4-6=-48, 2-5=-20
Concentrated Loads (lb)
Vert: 3=-26 (B), 4=-26 (B), 8=-2 (B), 7=-2 (B), 9=-7 (B), 10=-7 (B), 11=-2 (B), 12=-2 (B)

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	H2	Hip	1	1	Job Reference (optional) I52488919

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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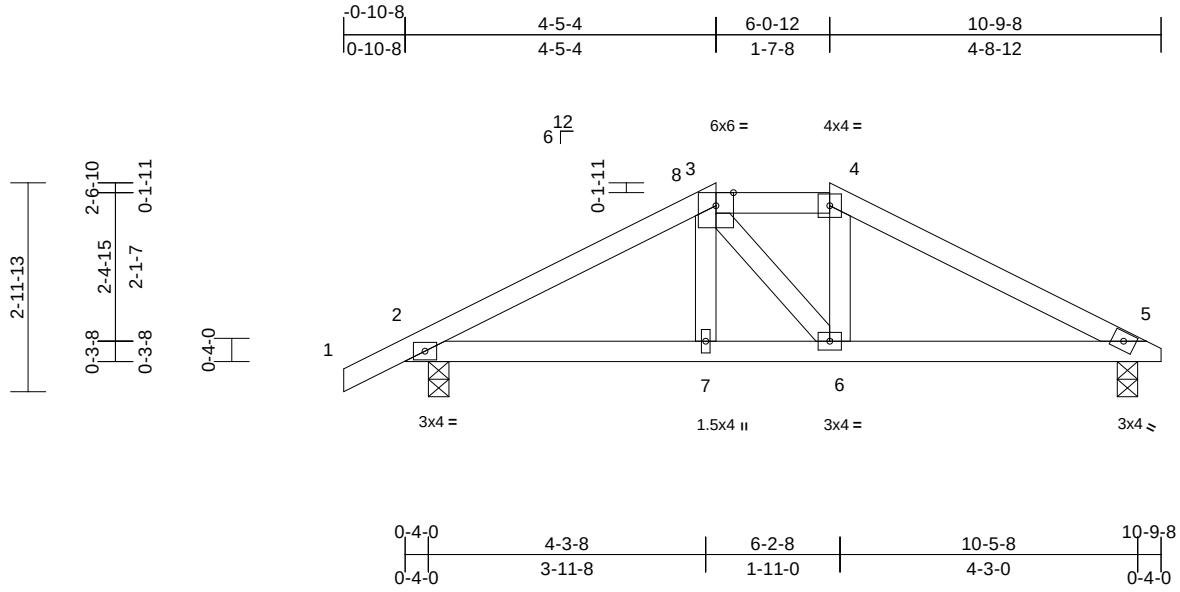

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.01	2-7	>999	240	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.03	2-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 42 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=403/0-3-8, 5=350/0-3-8
Max Horiz 2=57 (LC 20)
Max Uplift 2=-91 (LC 16), 5=-62 (LC 17)
Max Grav 2=576 (LC 41), 5=480 (LC 41)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-3=-697/261, 3-4=-549/290, 4-5=-699/261
BOT CHORD 2-7=-154/549, 6-7=-155/544, 5-6=-156/553
WEBS 3-7=0/128, 3-6=-89/99, 4-6=0/131

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 4-5-4, Exterior(2E) 4-5-4 to 10-3-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 5. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	H3	Common	2	1	Job Reference (optional) I52488920

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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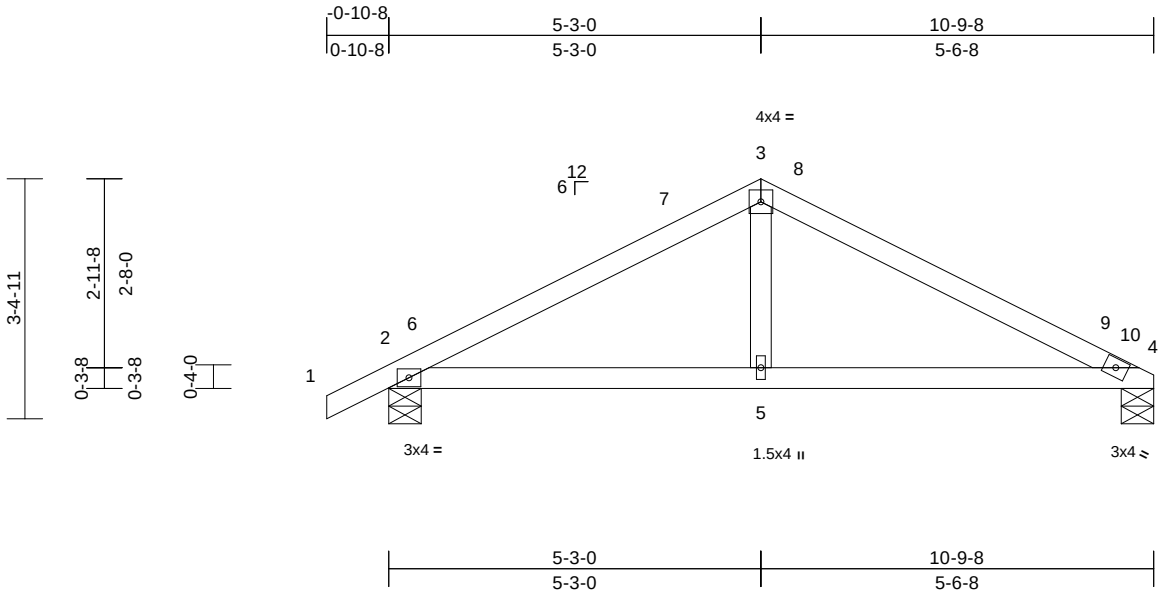

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.02	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.05	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 38 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SPF 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 (lb/size) 2=405/0-5-8, 4=347/0-5-8
Max Horiz 2=65 (LC 20)
Max Uplift 2=-99 (LC 16), 4=-72 (LC 17)
Max Grav 2=546 (LC 2), 4=461 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/29, 2-3=-663/282, 3-4=-655/286
BOT CHORD 2-5=-167/516, 4-5=-167/516
WEBS 3-5=0/251

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 5-3-0, Exterior(2R) 5-3-0 to 10-3-0, Interior (1) 10-3-0 to 10-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 4 and 2. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	H4	Roof Special	3	1	Job Reference (optional) I52488921

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:14:56 Page: 1
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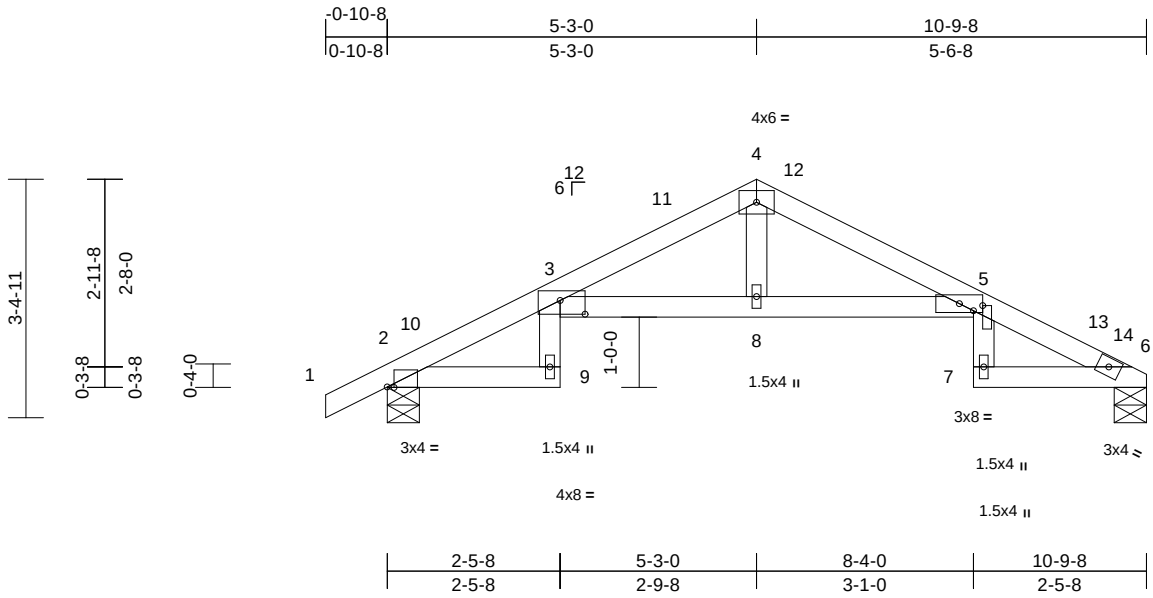

Scale = 1:32.7

Plate Offsets (X, Y): [2:0-1-3,Edge], [3:0-4-4,0-2-5], [5:0-6-7,0-0-5], [5:0-0-14,0-1-9]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.24	5-8	>511	240	MT20	197/144
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.44	5-8	>284	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.43	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 39 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2 *Except* 9-3,5-7:2x4 SPF No.3
WEBS 2x4 SPF 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 (lb/size) 2=405/0-5-8, 6=347/0-5-8
Max Horiz 2=65 (LC 16)
Max Uplift 2=-99 (LC 16), 6=-72 (LC 17)
Max Grav 2=546 (LC 2), 6=461 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/29, 2-3=-269/157, 3-4=-946/405, 4-5=-958/417, 5-6=-241/128
BOT CHORD 2-9=-6/18, 3-9=-21/86, 3-8=-288/894, 5-8=-289/897, 5-7=-16/81, 6-7=-6/21
WEBS 4-8=-45/246

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 5-3-0, Exterior(2R) 5-3-0 to 10-3-0, Interior (1) 10-3-0 to 10-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6 and 2. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	J1	Diagonal Hip Girder	1	1	Job Reference (optional) I52488922

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:44:56 Page: 1
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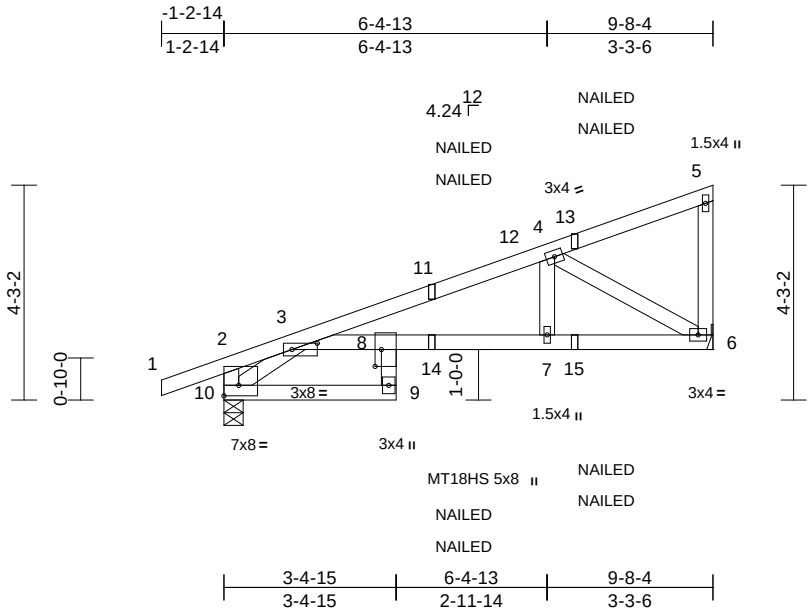

Scale = 1:45.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	0.15	7-8	>769	240	MT20	197/144
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.18	7-8	>626	180	MT18HS	197/144
TCDL	10.0	Rep Stress Incr	NO	WB	0.32	Horz(CT)	0.08	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 46 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 9-8:2x4 SPF No.3, 3-6:2x4 SP 1650F 1.5E
WEBS 2x4 SPF No.3 *Except* 10-2:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-2-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-7-7 oc bracing.

REACTIONS (lb/size) 6=527/ Mechanical, 10=500/0-4-9
Max Horiz 10=177 (LC 13)
Max Uplift 6=-202 (LC 16), 10=-197 (LC 12)
Max Grav 6=567 (LC 23), 10=604 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-10=-286/260, 1-2=0/35, 2-3=-83/19, 3-4=-945/459, 4-5=-139/58, 5-6=-93/75
BOT CHORD 9-10=-352/336, 8-9=-25/79, 3-8=-240/556, 7-8=-592/860, 6-7=-592/860
WEBS 4-7=-116/331, 4-6=-990/643, 3-10=-492/295

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -1-2-14 to 5-10-0, Exterior(2R) 5-10-0 to 9-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
5) All plates are MT20 plates unless otherwise indicated.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 202 lb uplift at joint 6.
10) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
13) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-48, 2-5=-48, 9-10=-20, 6-8=-20
Concentrated Loads (lb)
Vert: 11=-11 (F=-6, B=-6), 13=-254 (F=-127, B=-127), 14=-60 (F=-30, B=-30)

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	J2	Jack-Open	2	1	Job Reference (optional) I52488923

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:04:56 Page: 1
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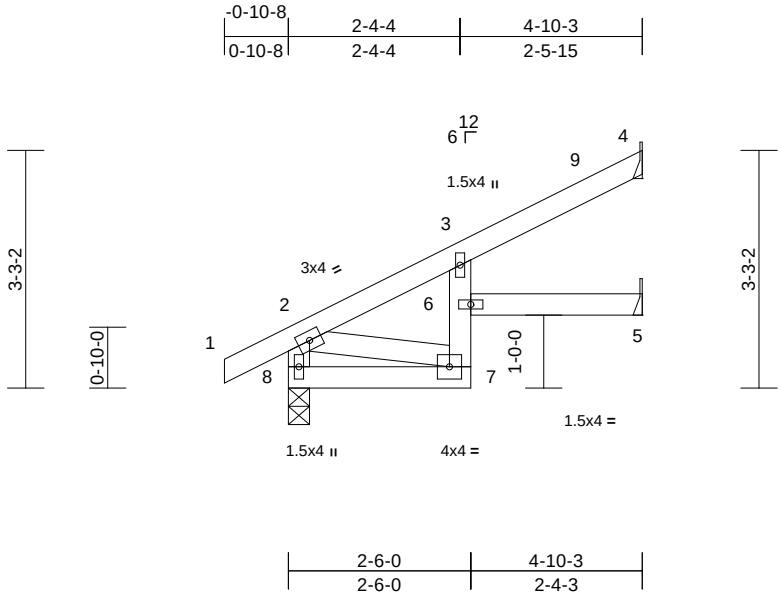

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	0.12	7	>484	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.14	7	>412	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.06	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 21 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 7-3:2x4 SPF No.3
WEBS 2x4 SP No.2 *Except* 7-2:2x4 SPF No.3

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

REACTIONS (lb/size) 4=127/ Mechanical, 5=24/ Mechanical, 8=211/0-3-8
Max Horiz 8=111 (LC 16)
Max Uplift 4=-97 (LC 16), 8=-35 (LC 16)
Max Grav 4=195 (LC 23), 5=49 (LC 7), 8=288 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-266/154, 1-2=0/34, 2-3=-100/25, 3-4=-102/79
BOT CHORD 7-8=-226/96, 6-7=-48/48, 3-6=-33/93, 5-6=0/0
WEBS 2-7=-100/234

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 4-9-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
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 3-06-00 tall by 2-00-00 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 97 lb uplift at joint 4.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	J3	Jack-Open	2	1	I52488924

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:14:57 Page: 1
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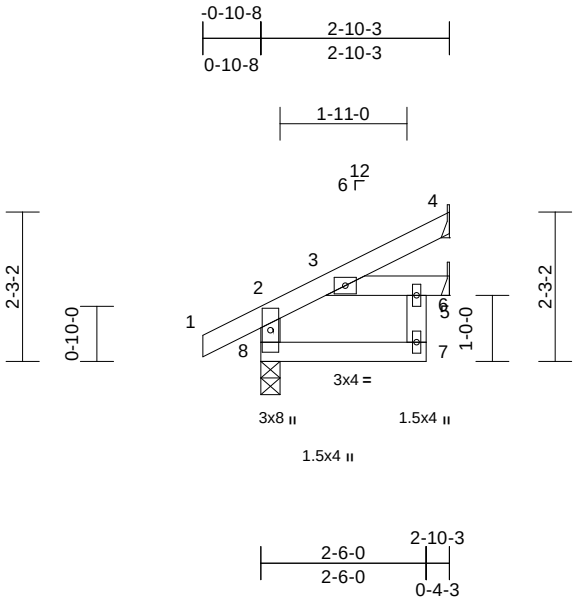

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	0.00	3	>999	240	MT20	197/144
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	0.00	3-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 14 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 7-6:2x4 SPF No.3
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-10-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 4=44/ Mechanical, 5=52/ Mechanical, 8=159/0-3-8
Max Horiz 8=68 (LC 16)
Max Uplift 4=-35 (LC 16), 5=-5 (LC 16), 8=-21 (LC 16)
Max Grav 4=65 (LC 23), 5=84 (LC 7), 8=222 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-199/131, 1-2=0/34, 2-3=-81/0, 3-4=-42/24
BOT CHORD 7-8=-57/49, 6-7=-6/44, 3-6=-49/57, 5-6=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
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 3-06-00 tall by 2-00-00 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 35 lb uplift at joint 4 and 5 lb uplift at joint 5.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	J4	Jack-Closed	5	1	Job Reference (optional) I52488925

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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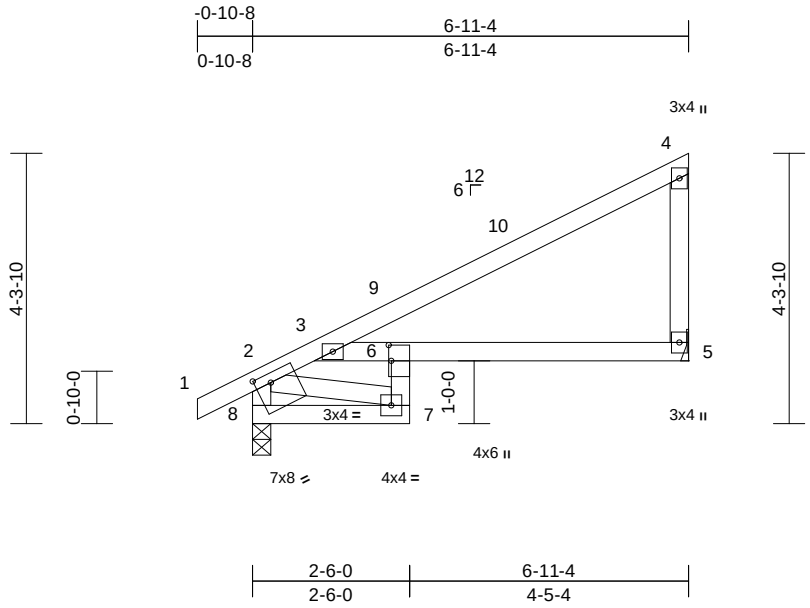

Scale = 1:36.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	0.14	5-6	>565	240	MT20	197/144
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.17	5-6	>469	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.07	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 32 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 7-6:2x4 SPF No.3
WEBS 2x4 SPF No.3 *Except* 8-2:2x4 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 8-10-3 oc bracing.

REACTIONS (lb/size) 5=221/ Mechanical, 8=277/0-3-8
Max Horiz 8=165 (LC 13)
Max Uplift 5=-90 (LC 16), 8=-66 (LC 16)
Max Grav 5=309 (LC 23), 8=376 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-365/229, 1-2=0/34, 2-3=-285/137, 3-4=-175/57, 4-5=-192/214
BOT CHORD 7-8=-437/288, 6-7=-66/64, 3-6=-144/175, 5-6=-101/109
WEBS 2-7=-101/209

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 6-9-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
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 3-06-00 tall by 2-00-00 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 90 lb uplift at joint 5.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	J5	Jack-Closed	4	1	Job Reference (optional) I52488926

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:44:57 Page: 1
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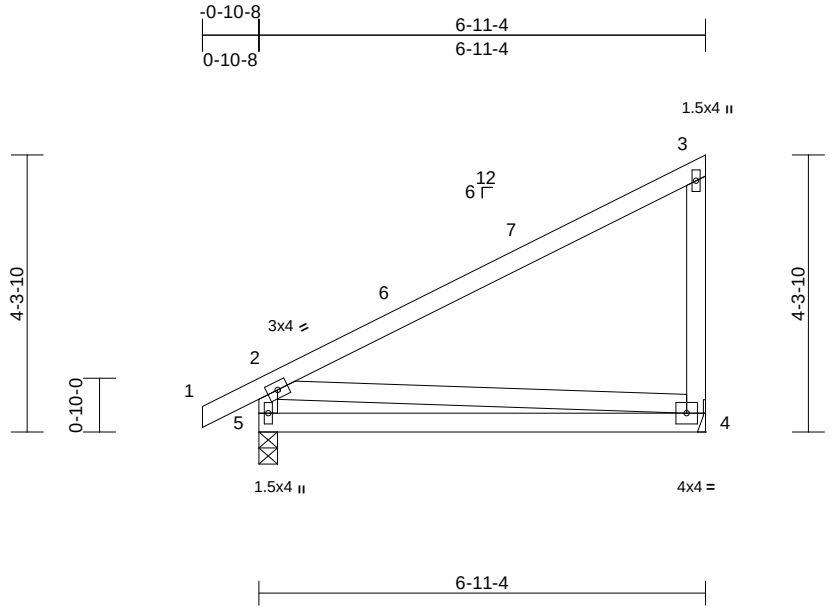

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.12	4-5	>682	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.23	4-5	>341	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 36 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x4 SPF No.3 *Except* 5-2:2x4 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 9-2-5 oc bracing.

REACTIONS (lb/size) 4=221/ Mechanical, 5=277/0-3-8
Max Horiz 5=183 (LC 13)
Max Uplift 4=-89 (LC 16), 5=-68 (LC 16)
Max Grav 4=309 (LC 23), 5=376 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-310/246, 1-2=0/34, 2-3=-204/141, 3-4=-242/277
BOT CHORD 4-5=-378/236
WEBS 2-4=-177/325

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 6-9-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
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 3-06-00 tall by 2-00-00 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 89 lb uplift at joint 4.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	J7	Jack-Closed	8	1	Job Reference (optional) I52488927

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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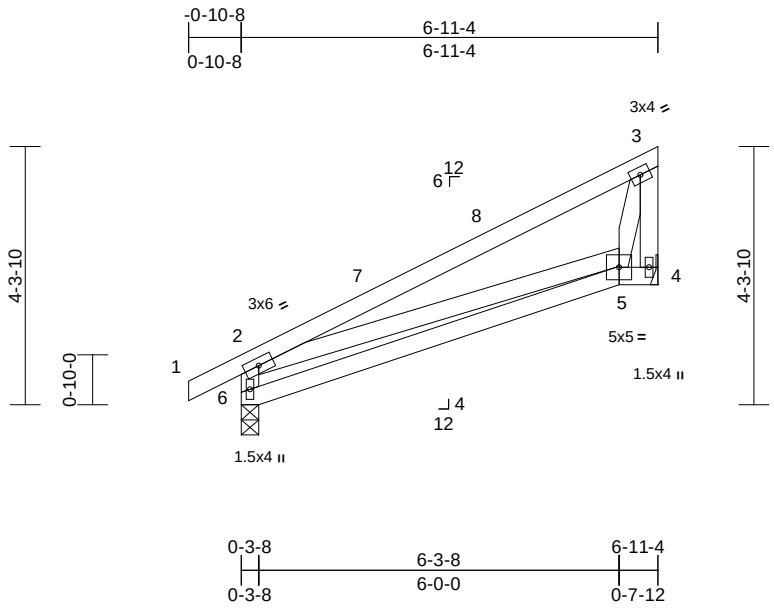

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.09	5-6	>881	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.18	5-6	>440	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 36 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x4 SPF No.3 *Except* 6-2:2x4 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 9-7-6 oc bracing.

REACTIONS (lb/size) 4=221/ Mechanical, 6=277/0-3-8
Max Horiz 6=148 (LC 13)
Max Uplift 4=-96 (LC 16), 6=-61 (LC 16)
Max Grav 4=309 (LC 23), 6=376 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-6=-315/282, 1-2=0/34, 2-3=-173/79, 3-4=-304/263
BOT CHORD 5-6=-350/200, 4-5=-38/42
WEBS 2-5=-124/305, 3-5=0/146

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 6-9-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) 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.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 96 lb uplift at joint 4.
10) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	J8	Diagonal Hip Girder	1	1	Job Reference (optional) I52488928

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:04:58 Page: 1
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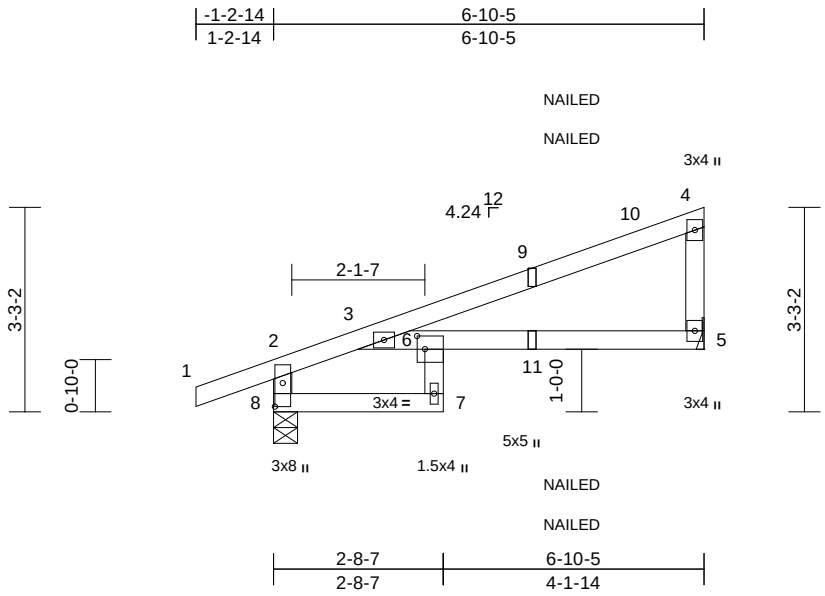

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Plate Offsets (X, Y): [6:0-2-8,0-1-8], [8:0-4-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	0.17	5-6	>470	240	MT20	197/144
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.18	5-6	>437	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.07	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 28 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 7-6:2x4 SPF No.3
WEBS 2x4 SP No.2 *Except* 4-5:2x4 SPF 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 (lb/size) 5=239/ Mechanical, 8=311/0-4-9
Max Horiz 8=129 (LC 13)
Max Uplift 5=-115 (LC 16), 8=-145 (LC 12)
Max Grav 5=314 (LC 23), 8=416 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-391/404, 1-2=0/35, 2-3=-254/162, 3-4=-168/77, 4-5=-175/209
BOT CHORD 7-8=-270/174, 6-7=-18/49, 3-6=-77/142, 5-6=-141/116

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -1-2-14 to 5-10-0, Exterior(2R) 5-10-0 to 6-8-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
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 3-06-00 tall by 2-00-00 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 115 lb uplift at joint 5.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
12) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-48, 2-4=-48, 7-8=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 9=-4 (F=-2, B=-2), 11=-36 (F=-18, B=-18)

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	J9	Jack-Open	2	1	I52488929 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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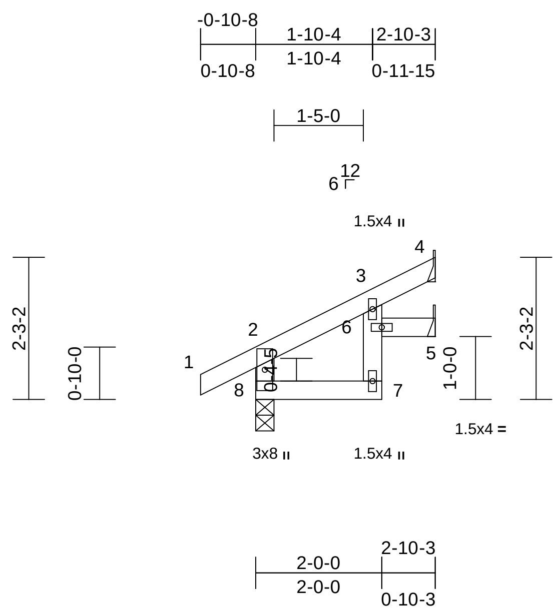

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	0.00	7	>999	240	MT20	197/144
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	0.00	7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 13 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 7-3:2x4 SPF No.3
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-10-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 4=47/ Mechanical, 5=33/ Mechanical, 8=148/0-3-8
Max Horiz 8=68 (LC 16)
Max Uplift 4=-32 (LC 16), 5=-18 (LC 16), 8=-28 (LC 16)
Max Grav 4=66 (LC 23), 5=41 (LC 23), 8=210 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-189/137, 1-2=0/34, 2-3=-79/1, 3-4=-35/27
BOT CHORD 7-8=-64/47, 6-7=-12/33, 3-6=-10/44, 5-6=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
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 3-06-00 tall by 2-00-00 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 32 lb uplift at joint 4 and 18 lb uplift at joint 5.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	J10	Jack-Open	4	1	Job Reference (optional) I52488930

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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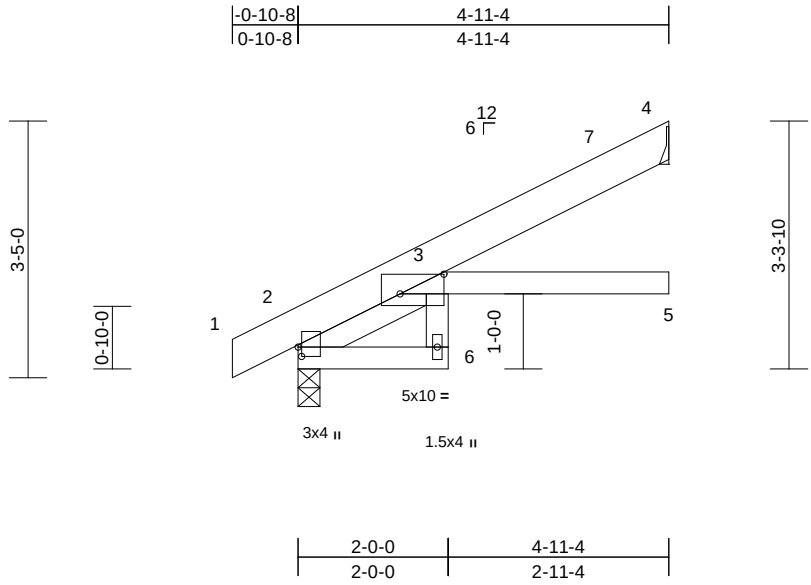

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Plate Offsets (X, Y): [2:0-1-8,0-0-9], [3:0-7-0,0-3-2]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.11	5	>521	240	MT20	197/144
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.24	5	>241	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 24 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SP No.2 *Except* 6-3:2x4 SPF No.3
SLIDER Left 2x4 SP No.2 -- 1-10-2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-11-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 2=214/0-3-8, 4=164/ Mechanical
Max Horiz 2=125 (LC 16)
Max Uplift 2=-33 (LC 16), 4=-81 (LC 16)
Max Grav 2=289 (LC 2), 4=235 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/0, 2-3=-133/13, 3-4=-106/101
BOT CHORD 2-6=-2/1, 3-6=0/38, 3-5=0/3

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 4-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
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 3-06-00 tall by 2-00-00 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 81 lb uplift at joint 4.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	J11	Jack-Open	1	1	Job Reference (optional) I52488931

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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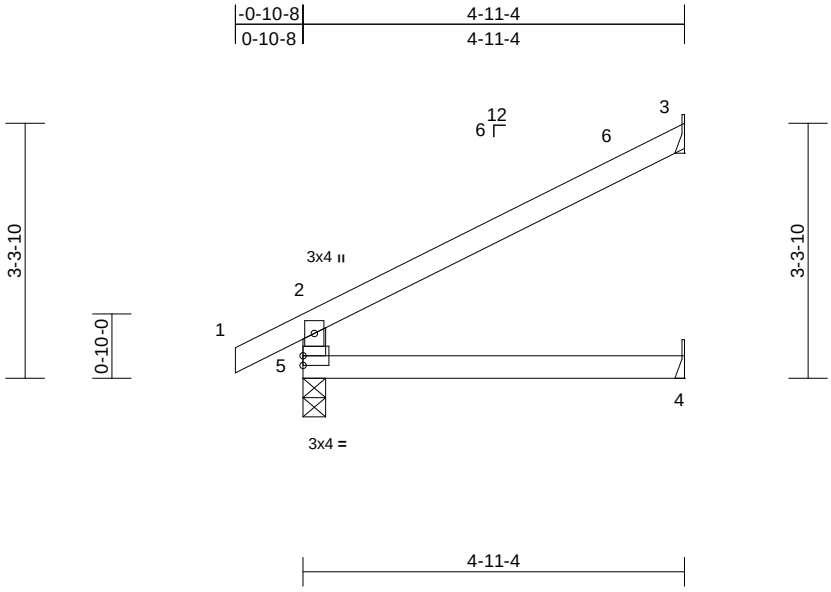

Scale = 1:29.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	0.04	4-5	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.05	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.03	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 18 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=102/ Mechanical, 4=53/ Mechanical, 5=214/0-3-8
Max Horiz 5=113 (LC 16)
Max Uplift 3=-91 (LC 16), 5=-35 (LC 16)
Max Grav 3=163 (LC 23), 4=89 (LC 7), 5=292 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-255/204, 1-2=0/34, 2-3=-106/57
BOT CHORD 4-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 4-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
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 3-06-00 tall by 2-00-00 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 91 lb uplift at joint 3.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	J12	Jack-Open	2	1	Job Reference (optional) I52488932

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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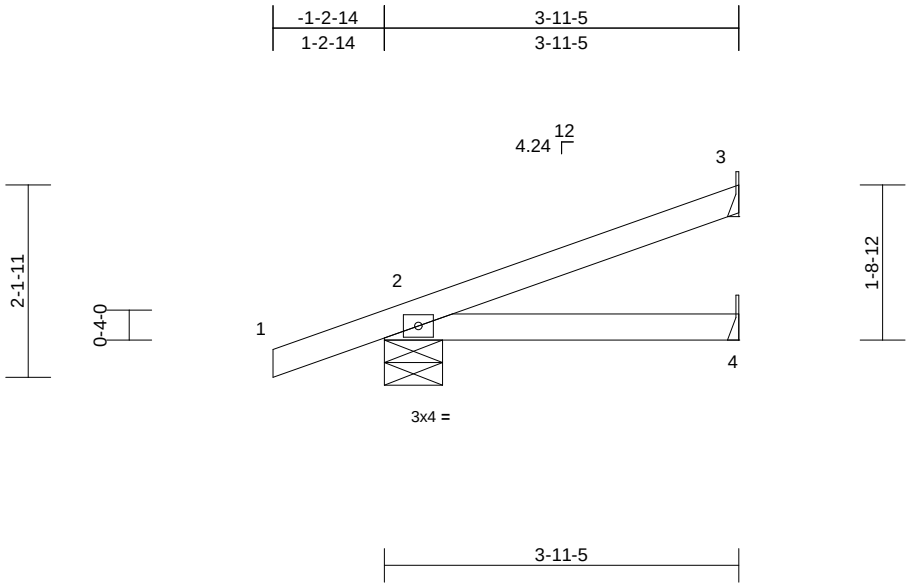

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.01	2-4	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.02	2-4	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 14 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 3-11-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=211/0-7-12, 3=68/ Mechanical, 4=36/ Mechanical
Max Horiz 2=85 (LC 12)
Max Uplift 2=-112 (LC 12), 3=-59 (LC 16)
Max Grav 2=301 (LC 23), 3=103 (LC 23), 4=71 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-3=-66/34
BOT CHORD 2-4=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
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 3-06-00 tall by 2-00-00 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 59 lb uplift at joint 3.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

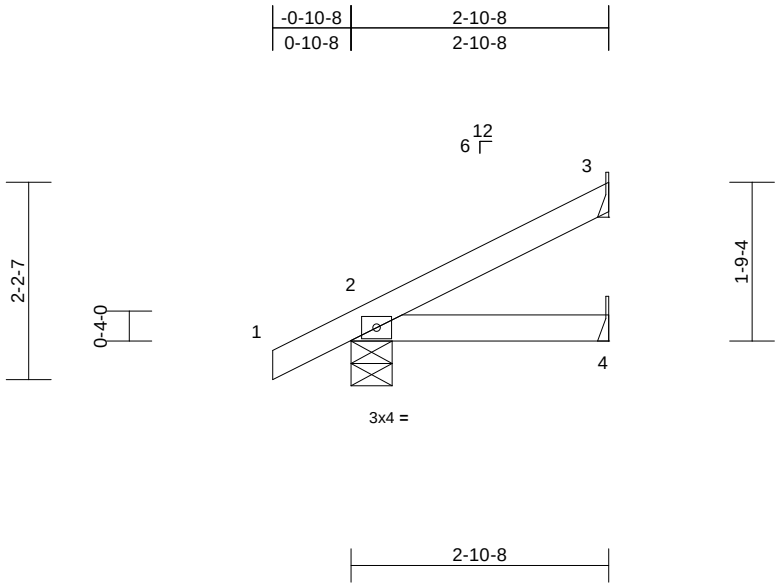
LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	J13	Jack-Open	6	1	Job Reference (optional) I52488933



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	0.00	2-4	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	2-4	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										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 2-10-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=151/0-5-8, 3=50/ Mechanical, 4=26/ Mechanical
Max Horiz 2=78 (LC 16)
Max Uplift 2=-43 (LC 16), 3=-51 (LC 16)
Max Grav 2=217 (LC 23), 3=76 (LC 23), 4=52 (LC 7)

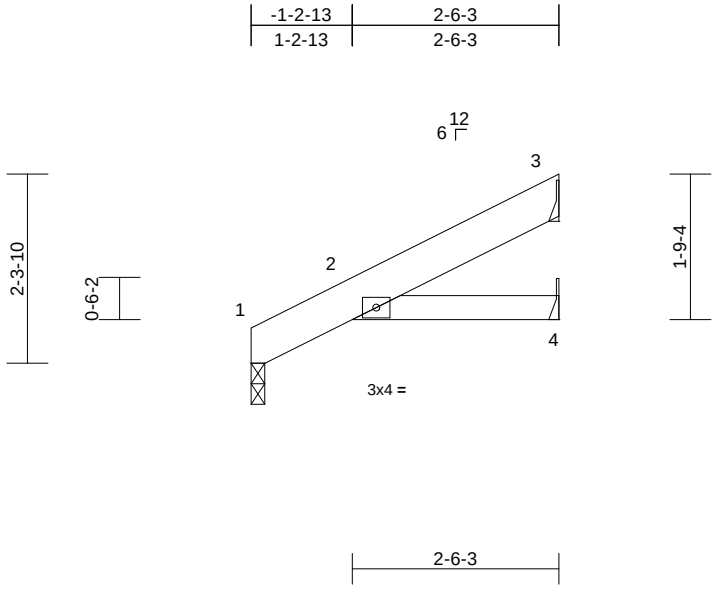
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/29, 2-3=-62/36
BOT CHORD 2-4=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
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 3-06-00 tall by 2-00-00 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 51 lb uplift at joint 3.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	J14	Jack-Open	3	1	Job Reference (optional) I52488934



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	0.01	2	>999	240	MT20	197/144
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	2	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 12 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SP No.2

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

REACTIONS (lb/size) 1=124/0-2-0, 3=98/ Mechanical, 4=25/ Mechanical
Max Horiz 1=79 (LC 16)
Max Uplift 1=-15 (LC 16), 3=-70 (LC 16)
Max Grav 1=168 (LC 23), 3=142 (LC 23), 4=49 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-104/26, 2-3=-81/59
BOT CHORD 2-4=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 1 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 at joint(s) 1.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 70 lb uplift at joint 3.
10) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	J15	Diagonal Hip Girder	3	1	Job Reference (optional) I52488935

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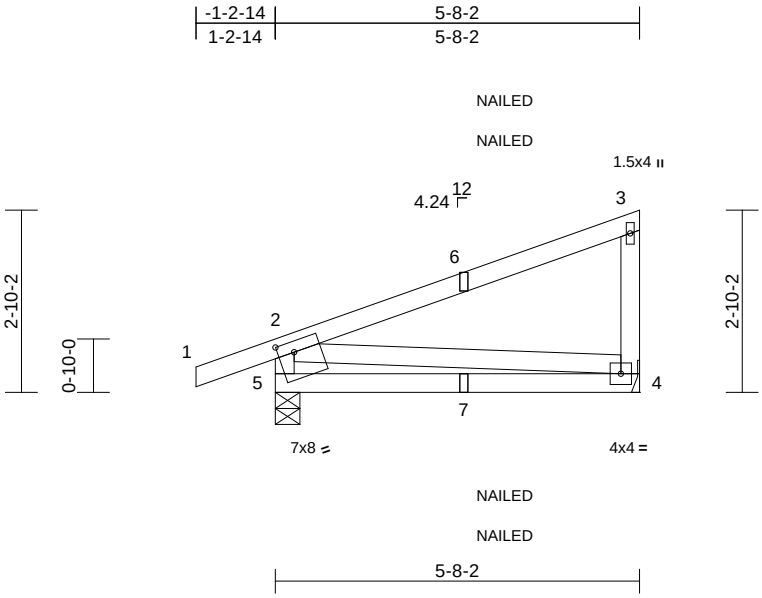

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Plate Offsets (X, Y): [5:0-3-0,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.05	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.10	4-5	>639	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.08	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 28 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-8-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 4=181/ Mechanical, 5=264/0-4-9
Max Horiz 5=127 (LC 13)
Max Uplift 4=-63 (LC 16), 5=-115 (LC 12)
Max Grav 4=241 (LC 23), 5=353 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-298/374, 1-2=0/35, 2-3=-138/77, 3-4=-186/234
BOT CHORD 4-5=-292/160
WEBS 2-4=-121/258

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
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 3-06-00 tall by 2-00-00 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 63 lb uplift at joint 4.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
12) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-48, 2-3=-48, 4-5=-20
Concentrated Loads (lb)
Vert: 6=-11 (B), 7=-3 (F=0, B=-4)

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER
June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	J16	Jack-Open	11	1	Job Reference (optional) I52488936

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:15:00 Page: 1
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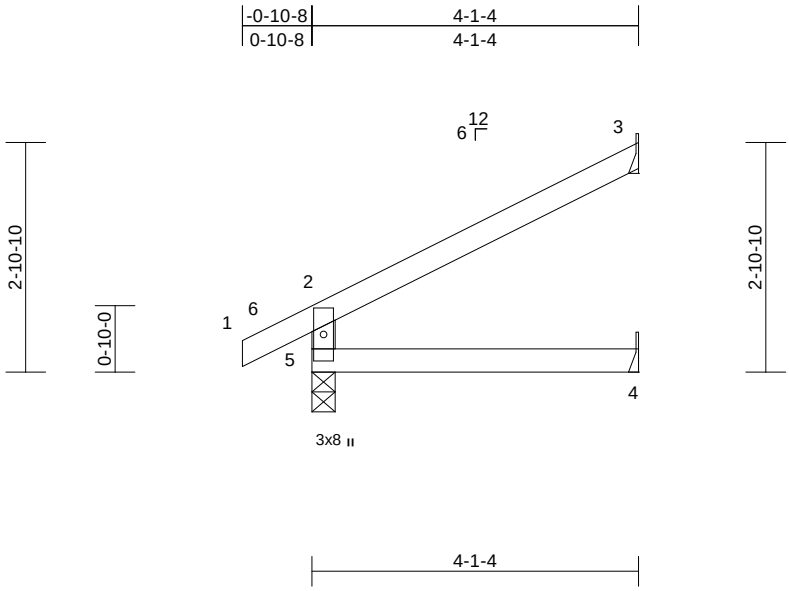

Scale = 1:29

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	0.02	4-5	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.02	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 15 lb	FT = 20%

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

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

REACTIONS (lb/size) 3=83/ Mechanical, 4=42/ Mechanical, 5=187/0-3-8
Max Horiz 5=95 (LC 16)
Max Uplift 3=-76 (LC 16), 5=-32 (LC 16)
Max Grav 3=132 (LC 23), 4=73 (LC 7), 5=264 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-234/178, 1-2=0/34, 2-3=-88/46
BOT CHORD 4-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
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 3-06-00 tall by 2-00-00 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 76 lb uplift at joint 3.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	J17	Jack-Open	5	1	I52488937

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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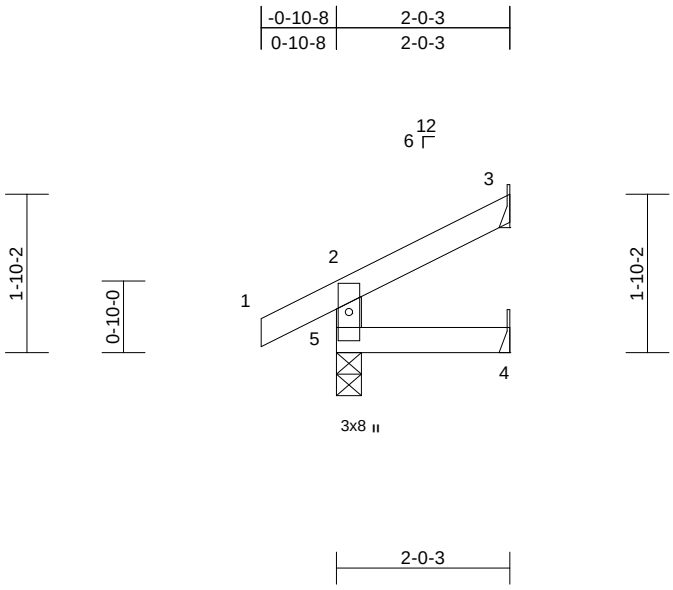

Scale = 1:26.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 9 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-0-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=32/ Mechanical, 4=15/ Mechanical, 5=124/0-3-8
Max Horiz 5=50 (LC 16)
Max Uplift 3=-36 (LC 16), 5=-26 (LC 16)
Max Grav 3=46 (LC 2), 4=33 (LC 7), 5=173 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-152/126, 1-2=0/34, 2-3=-41/22
BOT CHORD 4-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
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 3-06-00 tall by 2-00-00 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 36 lb uplift at joint 3.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	J18	Jack-Open	1	1	Job Reference (optional) I52488938

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:15:00 Page: 1
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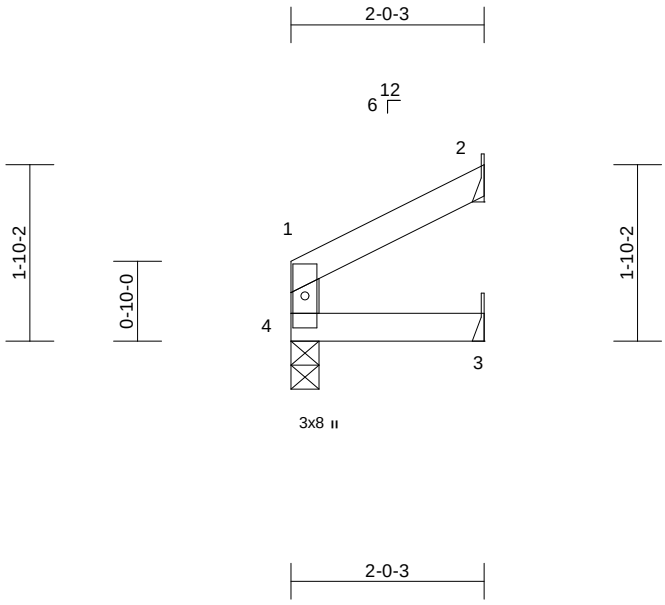

Scale = 1:24

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	0.00	3-4	>999	240	MT20	197/144
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	3-4	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 7 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-0-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=45/ Mechanical, 2=41/ Mechanical, 3=20/ Mechanical, 4=16/0-3-8
Max Horiz 1=38 (LC 13)
Max Uplift 1=-22 (LC 16), 2=-35 (LC 16)
Max Grav 1=67 (LC 2), 2=59 (LC 2), 3=35 (LC 7), 4=37 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=0/0, 1-2=-41/21
BOT CHORD 3-4=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
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 3-06-00 tall by 2-00-00 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 35 lb uplift at joint 2.
8) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	J19	Jack-Closed Girder	1	1	Job Reference (optional) I52488939

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:15:00 Page: 1
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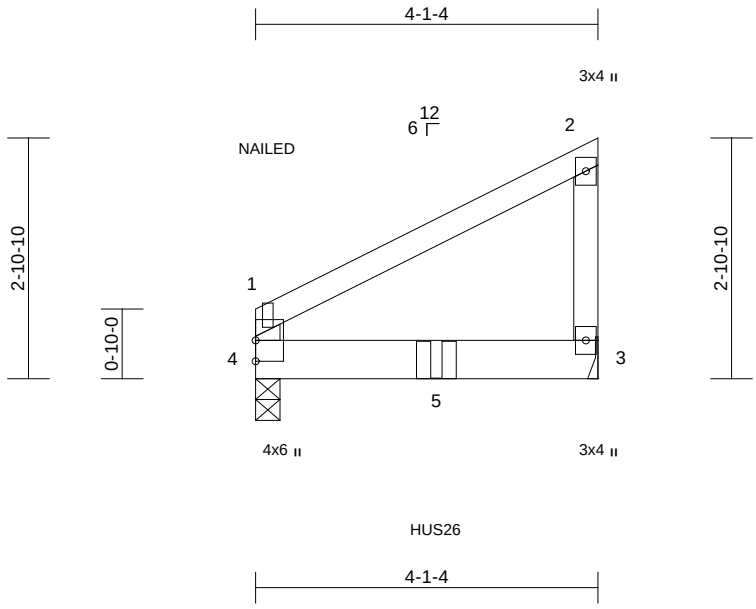

Scale = 1:27.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.03	3-4	>999	240	MT20	197/144
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.06	3-4	>775	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 19 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.3

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

REACTIONS (lb/size) 3=835/ Mechanical, 4=751/0-3-8
Max Horiz 4=106 (LC 13)
Max Uplift 3=-235 (LC 16), 4=-179 (LC 16)
Max Grav 3=884 (LC 2), 4=787 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-146/119, 1-2=-143/44, 2-3=-116/167
BOT CHORD 3-4=-85/88

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
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 3-06-00 tall by 2-00-00 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 235 lb uplift at joint 3.
8) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 4. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent at 2-2-0 from the left end to connect truss(es) to front face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.
12) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
13) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-48, 3-4=-20
Concentrated Loads (lb)
Vert: 1=5 (F), 5=-1333 (F)

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	J20	Jack-Open Structural Gable	2	1	Job Reference (optional) I52488940

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:15:01 Page: 1
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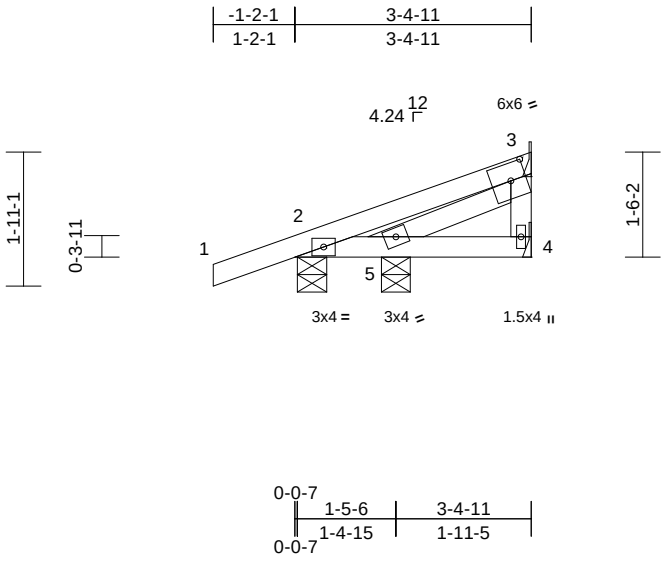

Scale = 1:33

Plate Offsets (X, Y): [3:0-2-10,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	0.00	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 16 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-8-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=151/0-5-1, 3=57/ Mechanical, 4=18/ Mechanical, 5=46/0-4-15
Max Horiz 2=65 (LC 13)
Max Uplift 2=-126 (LC 12), 3=-45 (LC 16)
Max Grav 2=223 (LC 23), 3=84 (LC 23), 4=35 (LC 7), 5=90 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/29, 2-3=-47/29, 3-4=0/0
BOT CHORD 2-5=-42/31, 4-5=-24/26
WEBS 3-5=-29/14

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
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 3-06-00 tall by 2-00-00 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 45 lb uplift at joint 3.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 5. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	J21	Jack-Open	4	1	I52488941

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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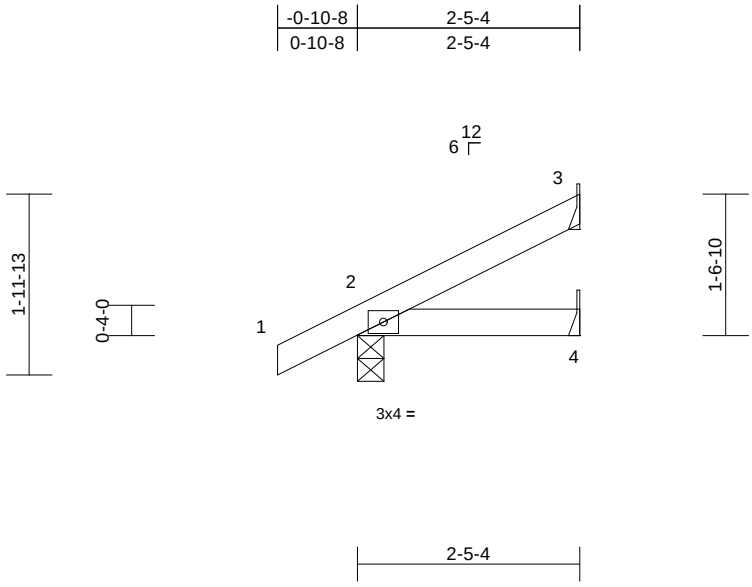

Scale = 1:25.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	0.00	2-4	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	2-4	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										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 2-5-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=135/0-3-8, 3=42/ Mechanical, 4=22/ Mechanical
Max Horiz 2=68 (LC 16)
Max Uplift 2=-41 (LC 16), 3=-42 (LC 16)
Max Grav 2=190 (LC 23), 3=62 (LC 23), 4=45 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/29, 2-3=-51/31
BOT CHORD 2-4=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
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 3-06-00 tall by 2-00-00 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 42 lb uplift at joint 3.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	LAY1	Lay-In Gable	1	1	Job Reference (optional) I52488942

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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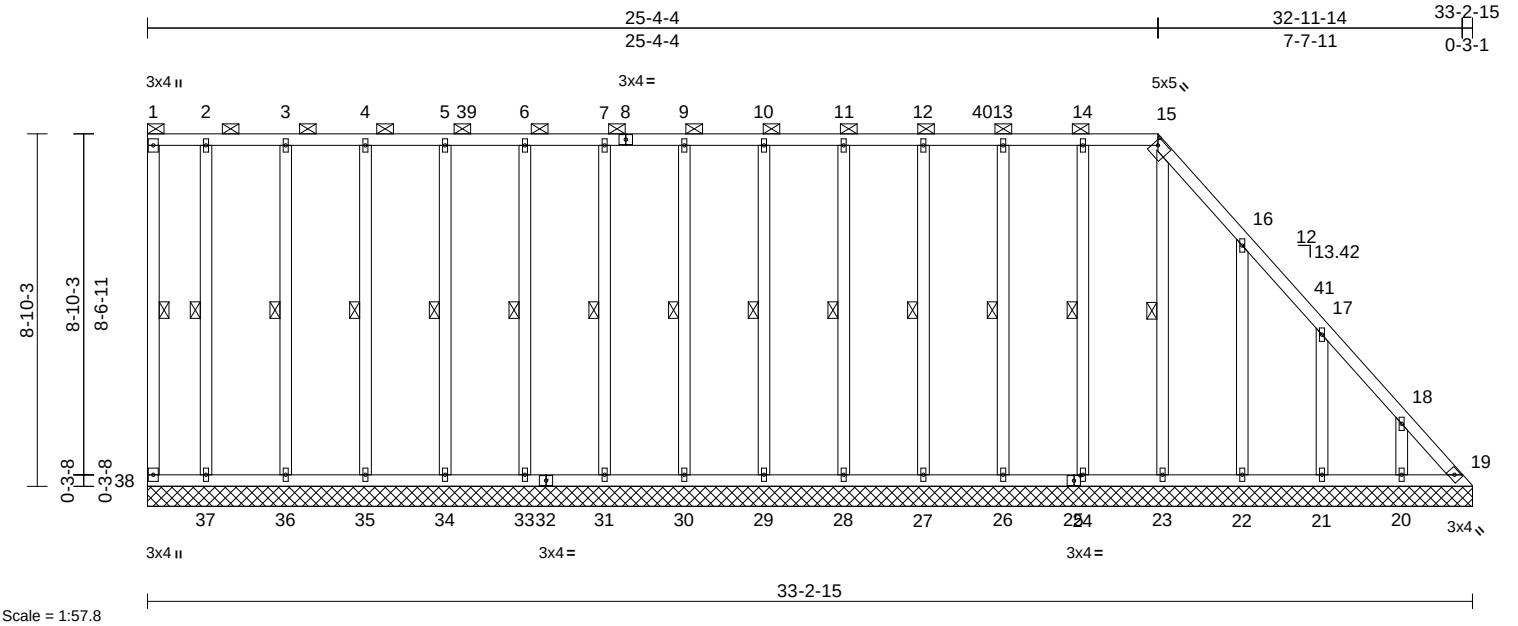

Scale = 1:57.8

Plate Offsets (X, Y): [15:0-1-5,0-1-15], [25:0-1-15,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.23	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.18	Horiz(TL)	0.02	19	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 249 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-15.	
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.	
WEBS	1 Row at midpt	1-38, 2-37, 3-36, 4-35, 5-34, 6-33, 7-31, 9-30, 10-29, 11-28, 12-27, 13-26, 14-24, 15-23

REACTIONS (lb/size) 19=34/33-2-15, 20=131/33-2-15, 21=135/33-2-15, 22=144/33-2-15, 23=139/33-2-15, 24=154/33-2-15, 26=157/33-2-15, 27=155/33-2-15, 28=156/33-2-15, 29=155/33-2-15, 30=154/33-2-15, 31=159/33-2-15, 33=154/33-2-15, 34=155/33-2-15, 35=155/33-2-15, 36=160/33-2-15, 37=138/33-2-15, 38=39/33-2-15
Max Horiz 38=-364 (LC 14)
Max Uplift 19=-168 (LC 15), 20=-143 (LC 17), 21=-147 (LC 17), 22=-166 (LC 17), 23=-127 (LC 12), 24=-48 (LC 12), 26=-41 (LC 13), 27=-40 (LC 12), 28=-39 (LC 13), 29=-39 (LC 12), 30=-39 (LC 13), 31=-42 (LC 12), 33=-37 (LC 13), 34=-41 (LC 12), 35=-43 (LC 13), 36=-51 (LC 12), 37=-55 (LC 13), 38=-24 (LC 12)
Max Grav 19=307 (LC 12), 20=252 (LC 43), 21=257 (LC 43), 22=286 (LC 43), 23=192 (LC 30), 24=248 (LC 36), 26=247 (LC 36), 27=250 (LC 36), 28=190 (LC 36), 29=179 (LC 2), 30=178 (LC 2), 31=184 (LC 2), 33=178 (LC 2), 34=216 (LC 36), 35=249 (LC 36), 36=252 (LC 36), 37=216 (LC 36), 38=61 (LC 36)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-38=-120/116, 1-2=-135/150, 2-3=-135/150, 3-4=-135/150, 4-5=-135/150, 5-6=-135/150, 6-7=-135/150, 7-9=-135/150, 9-10=-135/150, 10-11=-135/150, 11-12=-135/150, 12-13=-135/150, 13-14=-135/150, 14-15=-135/149, 15-16=-234/213, 16-17=-322/334, 17-18=-438/437, 18-19=-543/534

BOT CHORD 37-38=-365/380, 36-37=-365/380, 35-36=-365/380, 34-35=-365/380, 33-34=-365/380, 31-33=-365/380, 30-31=-365/380, 29-30=-365/380, 28-29=-365/380, 27-28=-365/380, 26-27=-365/380, 24-26=-365/380, 23-24=-365/380, 22-23=-368/382, 21-22=-368/382, 20-21=-368/382, 19-20=-368/382

WEBS 2-37=-180/112, 3-36=-212/69, 4-35=-209/63, 5-34=-177/64, 6-33=-136/62, 7-31=-145/66, 9-30=-139/63, 10-29=-139/63, 11-28=-150/63, 12-27=-210/64, 13-26=-205/66, 14-24=-212/70, 15-23=-238/174, 16-22=-246/189, 17-21=-217/173, 18-20=-208/160

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 5-1-12, Interior (1) 5-1-12 to 25-4-4, Exterior(2R) 25-4-4 to 30-4-4, Interior (1) 30-4-4 to 32-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) All plates are 1.5x4 MT20 unless otherwise indicated.

June 14,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	LAY1	Lay-In Gable	1	1	Job Reference (optional) I52488942

7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 38, 168 lb uplift at joint 19, 55 lb uplift at joint 37, 51 lb uplift at joint 36, 43 lb uplift at joint 35, 41 lb uplift at joint 34, 37 lb uplift at joint 33, 42 lb uplift at joint 31, 39 lb uplift at joint 30, 39 lb uplift at joint 29, 39 lb uplift at joint 28, 40 lb uplift at joint 27, 41 lb uplift at joint 26, 48 lb uplift at joint 24, 127 lb uplift at joint 23, 166 lb uplift at joint 22, 147 lb uplift at joint 21 and 143 lb uplift at joint 20.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	LAY2	Lay-In Gable	1	1	Job Reference (optional) I52488943

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:15:02 Page: 1
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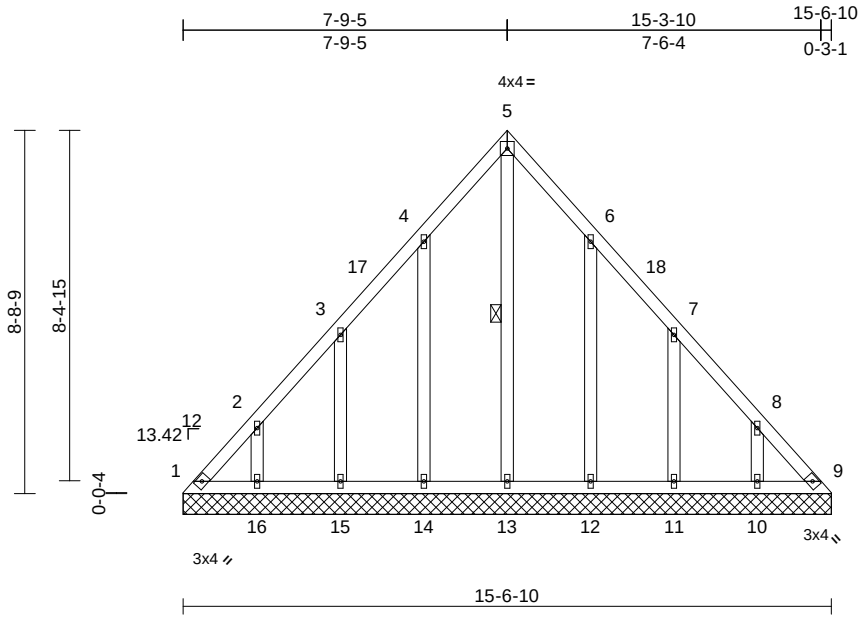


Scale = 1:55.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.01	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 91 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SPF 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.
WEBS 1 Row at midpt 5-13

REACTIONS (lb/size) 1=55/15-6-10, 9=55/15-6-10, 10=130/15-6-10, 11=136/15-6-10, 12=139/15-6-10, 13=90/15-6-10, 14=139/15-6-10, 15=136/15-6-10, 16=130/15-6-10
Max Horiz 1=-241 (LC 12)
Max Uplift 1=-115 (LC 14), 9=-79 (LC 15), 10=-142 (LC 17), 11=-153 (LC 17), 12=-148 (LC 17), 14=-150 (LC 16), 15=-152 (LC 16), 16=-142 (LC 16)
Max Grav 1=239 (LC 16), 9=215 (LC 17), 10=204 (LC 30), 11=213 (LC 30), 12=228 (LC 23), 13=197 (LC 17), 14=228 (LC 22), 15=212 (LC 29), 16=204 (LC 29)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-335/210, 2-3=-203/156, 3-4=-148/108, 4-5=-171/168, 5-6=-171/160, 6-7=-111/60, 7-8=-172/108, 8-9=-303/210
BOT CHORD 1-16=-154/228, 15-16=-154/228, 14-15=-154/228, 13-14=-154/228, 12-13=-154/228, 11-12=-154/228, 10-11=-154/228, 9-10=-154/228
WEBS 5-13=-172/122, 4-14=-198/173, 3-15=-207/178, 2-16=-186/159, 6-12=-198/171, 7-11=-207/178, 8-10=-186/159

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-3-15 to 5-3-15, Interior (1) 5-3-15 to 7-9-9, Exterior(2R) 7-9-9 to 12-9-9, Interior (1) 12-9-9 to 15-3-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) All plates are 1.5x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 115 lb uplift at joint 1, 79 lb uplift at joint 9, 150 lb uplift at joint 14, 152 lb uplift at joint 15, 142 lb uplift at joint 16, 148 lb uplift at joint 12, 153 lb uplift at joint 11 and 142 lb uplift at joint 10.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

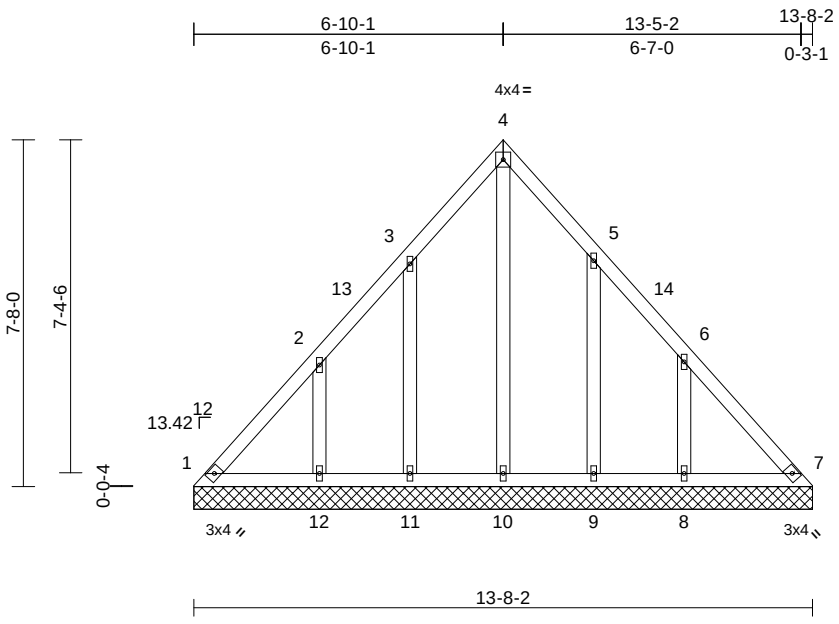
June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	LAY3	Lay-In Gable	1	1	Job Reference (optional) I52488944

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:15:02 ID:8k_DRsfivb36Ykt3HL2i1fz7gJF-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4z3C?| Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 75 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SPF 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 (lb/size) 1=88/13-8-2, 7=89/13-8-2, 8=181/13-8-2, 9=125/13-8-2, 10=96/13-8-2, 11=129/13-8-2, 12=176/13-8-2
Max Horiz 1=-211 (LC 12)
Max Uplift 1=-57 (LC 14), 7=-24 (LC 15), 8=-199 (LC 17), 9=-136 (LC 17), 11=-143 (LC 16), 12=-194 (LC 16)
Max Grav 1=184 (LC 31), 7=170 (LC 32), 8=282 (LC 30), 9=215 (LC 23), 10=172 (LC 32), 11=220 (LC 22), 12=274 (LC 29)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-250/171, 2-3=-150/97, 3-4=-153/147, 4-5=-153/140, 5-6=-118/54, 6-7=-221/151
BOT CHORD 1-12=-132/196, 11-12=-132/196, 10-11=-132/196, 9-10=-132/196, 8-9=-132/196, 7-8=-132/196
WEBS 2-12=-255/213, 3-11=-195/169, 4-10=-140/91, 5-9=-188/162, 6-8=-261/218

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-3-15 to 5-3-15, Interior (1) 5-3-15 to 6-10-5, Exterior(2R) 6-10-5 to 11-10-5, Interior (1) 11-10-5 to 13-4-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) All plates are 1.5x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 0-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) N/A
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	LAY4	Lay-In Gable	1	1	Job Reference (optional) I52488945

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:15:02 Page: 1
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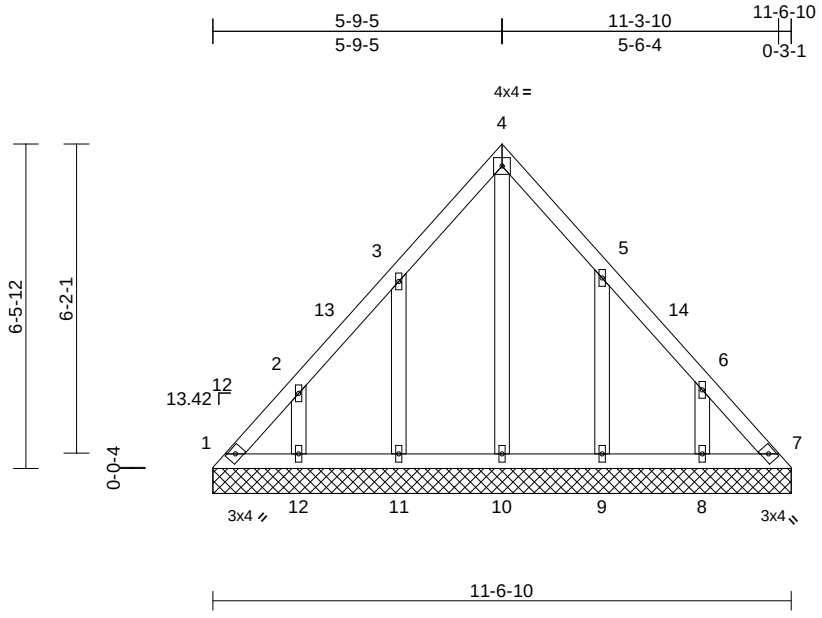

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 60 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SPF 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 (lb/size) 1=53/11-6-10, 7=55/11-6-10, 8=130/11-6-10, 9=141/11-6-10, 10=91/11-6-10, 11=145/11-6-10, 12=126/11-6-10
Max Horiz 1=-176 (LC 12)
Max Uplift 1=-72 (LC 14), 7=-44 (LC 15), 8=-143 (LC 17), 9=-155 (LC 17), 11=-160 (LC 16), 12=-139 (LC 16)
Max Grav 1=160 (LC 16), 7=141 (LC 17), 8=202 (LC 30), 9=232 (LC 23), 10=152 (LC 32), 11=236 (LC 22), 12=196 (LC 29)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-229/147, 2-3=-141/100, 3-4=-134/124, 4-5=-135/120, 5-6=-114/62, 6-7=-204/141
BOT CHORD 1-12=-109/161, 11-12=-109/161, 10-11=-109/161, 9-10=-109/161, 8-9=-109/161, 7-8=-109/161
WEBS 2-12=-190/156, 3-11=-220/186, 4-10=-111/66, 5-9=-214/180, 6-8=-195/161

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-3-15 to 5-3-15, Interior (1) 5-3-15 to 5-9-9, Exterior(2R) 5-9-9 to 10-9-9, Interior (1) 10-9-9 to 11-3-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) All plates are 1.5x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 0-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 72 lb uplift at joint 1, 44 lb uplift at joint 7, 139 lb uplift at joint 12, 160 lb uplift at joint 11, 155 lb uplift at joint 9 and 143 lb uplift at joint 8.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	LAY5	Lay-In Gable	1	1	I52488946 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:15:03 Page: 1
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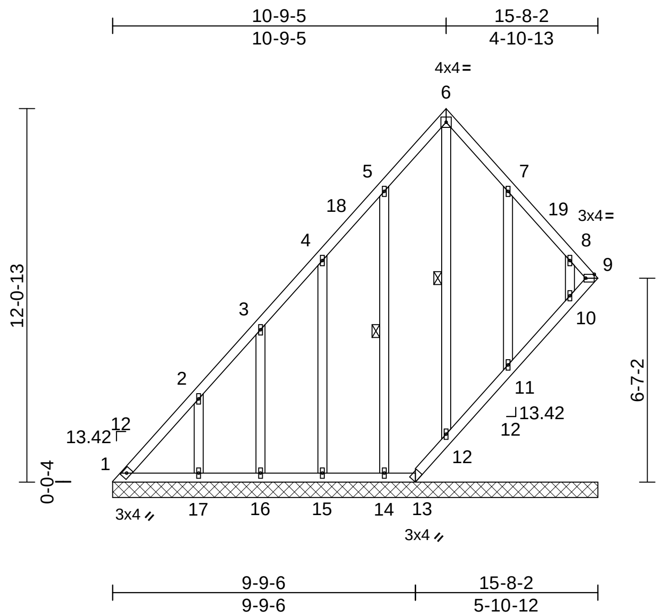

Scale = 1:74.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.22	Horiz(TL)	0.01	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 109 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SPF 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, Except:
6-0-0 oc bracing: 9-10.
WEBS 1 Row at midpt 6-12, 5-14

REACTIONS (lb/size) 1=87/15-8-2, 9=38/15-8-2, 10=113/15-8-2, 11=144/15-8-2, 12=84/15-8-2, 13=-10/15-8-2, 14=132/15-8-2, 15=140/15-8-2, 16=122/15-8-2, 17=178/15-8-2
Max Horiz 1=380 (LC 16)
Max Uplift 1=-122 (LC 14), 9=-165 (LC 15), 10=-131 (LC 17), 11=-149 (LC 17), 13=-119 (LC 17), 14=-149 (LC 16), 15=-155 (LC 16), 16=-134 (LC 16), 17=-194 (LC 16)
Max Grav 1=358 (LC 16), 9=243 (LC 17), 10=176 (LC 30), 11=233 (LC 23), 12=167 (LC 17), 13=96 (LC 15), 14=214 (LC 22), 15=217 (LC 29), 16=191 (LC 29), 17=277 (LC 29)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-508/370, 2-3=-328/213, 3-4=-191/131, 4-5=-128/80, 5-6=-165/153, 6-7=-166/154, 7-8=-130/85, 8-9=-162/120
BOT CHORD 1-17=-74/107, 16-17=-74/107, 15-16=-74/107, 14-15=-74/107, 13-14=-74/107, 12-13=-116/172, 11-12=-124/170, 10-11=-126/169, 9-10=-122/160
WEBS 6-12=-160/113, 5-14=-195/170, 4-15=-208/179, 3-16=-185/160, 2-17=-250/212, 7-11=-201/175, 8-10=-173/150

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-3-15 to 5-3-15, Interior (1) 5-3-15 to 10-9-9, Exterior(2E) 10-9-9 to 15-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) All plates are 1.5x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 122 lb uplift at joint 1, 165 lb uplift at joint 9, 119 lb uplift at joint 13, 149 lb uplift at joint 14, 155 lb uplift at joint 15, 134 lb uplift at joint 16, 194 lb uplift at joint 17, 149 lb uplift at joint 11 and 131 lb uplift at joint 10.
12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 9, 12, 11, 10.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	LAY6	Lay-In Gable	1	1	Job Reference (optional) I52488947

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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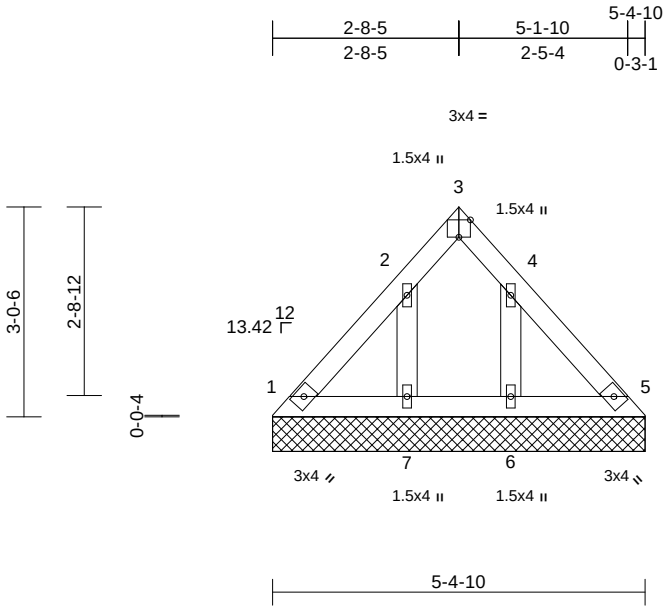

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Plate Offsets (X, Y): [3:Edge,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 23 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-5-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=50/5-4-10, 5=50/5-4-10, 6=111/5-4-10, 7=111/5-4-10
Max Horiz 1=-77 (LC 12)
Max Uplift 6=-109 (LC 17), 7=-111 (LC 16)
Max Grav 1=85 (LC 31), 5=84 (LC 32), 6=171 (LC 30), 7=173 (LC 29)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-113/107, 2-3=-44/8, 3-4=-44/8, 4-5=-111/107
BOT CHORD 1-7=-95/106, 6-7=-95/106, 5-6=-95/106
WEBS 2-7=-172/132, 4-6=-172/132

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 0-0-0 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 111 lb uplift at joint 7 and 109 lb uplift at joint 6.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	LAY7	Lay-In Gable	1	1	Job Reference (optional) I52488948

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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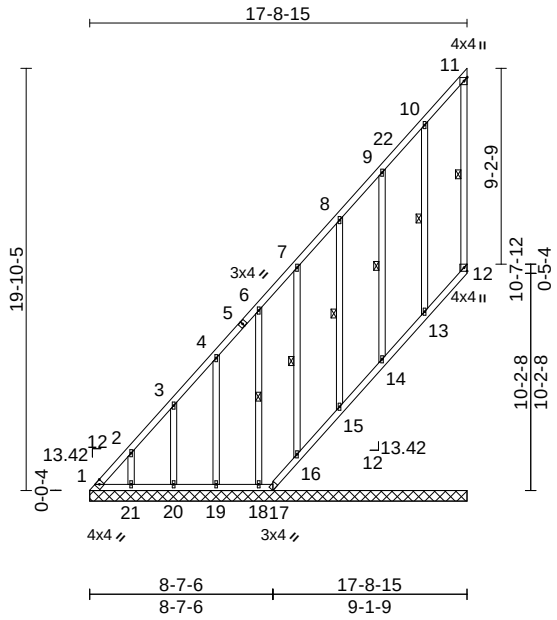

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.32	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horiz(TL)	-0.01	12	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 147 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-4-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 14-15,12-13.
WEBS 1 Row at midpt 11-12, 6-18, 7-16, 8-15, 9-14, 10-13

REACTIONS (lb/size) 1=42/17-8-15, 12=52/17-8-15, 13=142/17-8-15, 14=134/17-8-15, 15=139/17-8-15, 16=117/17-8-15, 17=5/17-8-15, 18=132/17-8-15, 19=138/17-8-15, 20=131/17-8-15, 21=138/17-8-15
Max Horiz 1=647 (LC 16)
Max Uplift 1=-368 (LC 14), 12=-307 (LC 15), 13=-153 (LC 16), 14=-145 (LC 16), 15=-154 (LC 16), 16=-121 (LC 16), 17=-120 (LC 12), 18=-160 (LC 16), 19=-150 (LC 16), 20=-142 (LC 16), 21=-151 (LC 16)
Max Grav 1=787 (LC 16), 12=265 (LC 12), 13=229 (LC 22), 14=212 (LC 29), 15=216 (LC 29), 16=185 (LC 29), 17=169 (LC 15), 18=210 (LC 29), 19=215 (LC 29), 20=205 (LC 29), 21=216 (LC 29)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1227/1162, 2-3=-1106/1049, 3-4=-980/937, 4-6=-850/818, 6-7=-717/693, 7-8=-606/596, 8-9=-473/474, 9-10=-354/369, 10-11=-183/182, 11-12=-141/114
BOT CHORD 1-21=-160/176, 20-21=-160/176, 19-20=-160/176, 18-19=-160/176, 17-18=-160/176, 16-17=-250/279, 15-16=-253/272, 14-15=-259/278, 13-14=-238/255, 12-13=-325/346
WEBS 2-21=-193/166, 3-20=-191/168, 4-19=-200/174, 6-18=-204/178, 7-16=-170/149, 8-15=-204/175, 9-14=-217/185, 10-13=-285/223

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-3-15 to 5-3-15, Interior (1) 5-3-15 to 17-7-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) All plates are 1.5x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 0-0-0 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 307 lb uplift at joint 12, 368 lb uplift at joint 1, 120 lb uplift at joint 17, 151 lb uplift at joint 21, 142 lb uplift at joint 20, 150 lb uplift at joint 19, 160 lb uplift at joint 18, 121 lb uplift at joint 16, 154 lb uplift at joint 15, 145 lb uplift at joint 14 and 153 lb uplift at joint 13.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 12, 16, 15, 14, 13.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	LAY8	Lay-In Gable	1	1	Job Reference (optional) I52488949

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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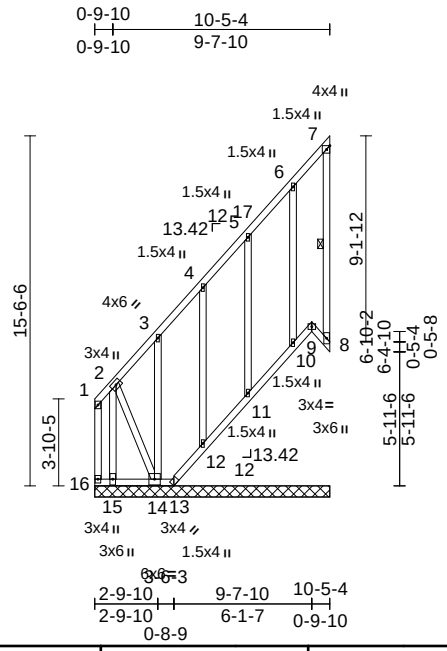

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.27	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.69	Horiz(TL)	-0.01	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 101 lb	FT = 20%

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

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

REACTIONS (lb/size) 8=34/10-5-4, 9=9/10-5-4, 10=123/10-5-4, 11=140/10-5-4, 12=130/10-5-4, 13=9/10-5-4, 14=135/10-5-4, 15=104/10-5-4, 16=4/10-5-4
Max Horiz 16=521 (LC 13)
Max Uplift 8=-132 (LC 15), 9=-46 (LC 15), 10=-133 (LC 13), 11=-160 (LC 16), 12=-159 (LC 16), 13=-112 (LC 12), 14=-883 (LC 16), 15=-568 (LC 14), 16=-132 (LC 14)
Max Grav 8=117 (LC 12), 9=56 (LC 16), 10=226 (LC 29), 11=212 (LC 29), 12=218 (LC 29), 13=164 (LC 15), 14=702 (LC 14), 15=916 (LC 13), 16=241 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-16=-214/191, 1-2=-190/177, 2-3=-704/684, 3-4=-635/627, 4-5=-476/479, 5-6=-348/362, 6-7=-159/171, 7-8=-120/100
BOT CHORD 15-16=-730/717, 14-15=-730/717, 13-14=-168/183, 12-13=-263/289, 11-12=-265/284, 10-11=-269/285, 9-10=-239/252, 8-9=-58/62
WEBS 2-15=-1591/1474, 3-14=-188/133, 4-12=-238/192, 5-11=-231/184, 6-10=-286/229, 2-14=-1416/1485

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 5-1-12, Interior (1) 5-1-12 to 10-3-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 0-0-0 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 132 lb uplift at joint 8, 46 lb uplift at joint 9, 159 lb uplift at joint 12, 160 lb uplift at joint 11 and 133 lb uplift at joint 10.
11) N/A
12) N/A
13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 8, 9, 12, 11, 10.
14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	V1	Valley	1	1	Job Reference (optional) I52488950

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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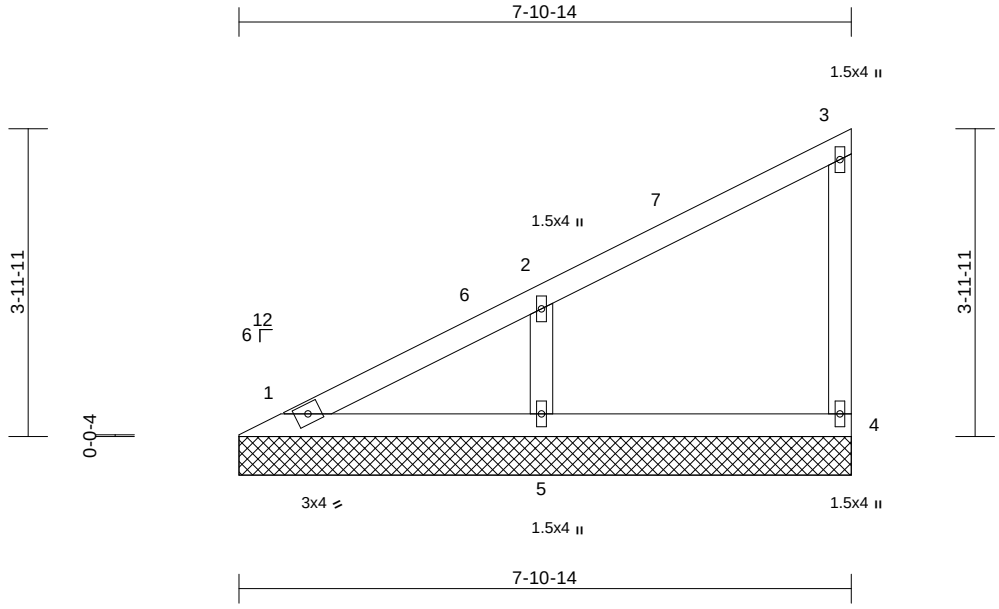

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 29 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SPF No.3
OTHERS	2x4 SPF 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 (lb/size) 1=79/7-10-14, 4=102/7-10-14, 5=305/7-10-14
Max Horiz 1=160 (LC 13)
Max Uplift 4=-30 (LC 13), 5=-137 (LC 16)
Max Grav 1=115 (LC 30), 4=149 (LC 22), 5=405 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-285/168, 2-3=-123/93, 3-4=-119/133
BOT CHORD	1-5=-70/77, 4-5=-70/77
WEBS	2-5=-315/326

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-7-9 to 5-7-9, Interior (1) 5-7-9 to 7-9-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 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 3-06-00 tall by 2-00-00 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 30 lb uplift at joint 4 and 137 lb uplift at joint 5.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/21/2022

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	V2	Valley	1	1	Job Reference (optional) I52488951

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:15:05 Page: 1
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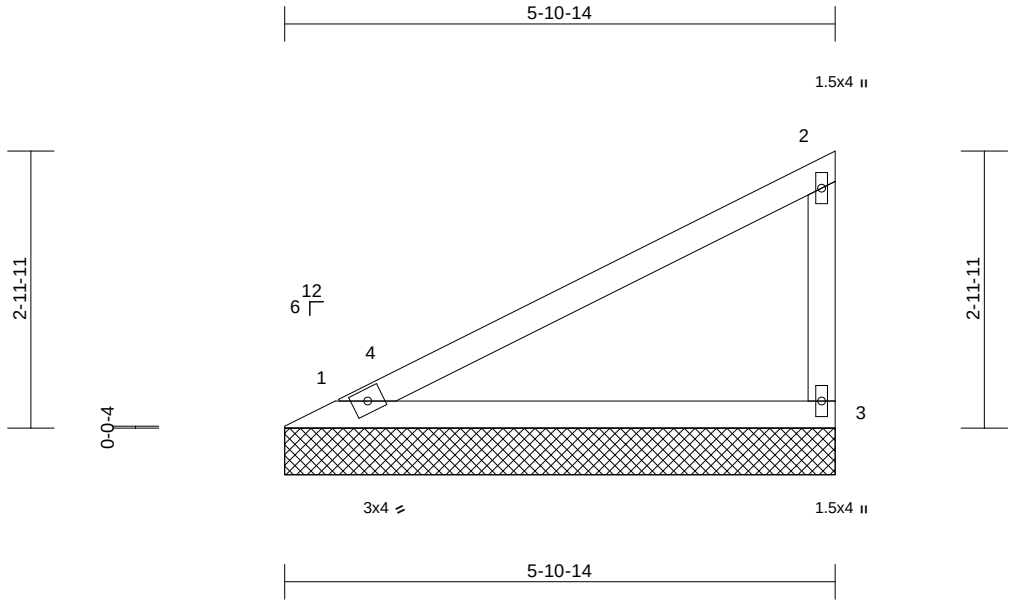

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.34	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 20 lb	FT = 20%

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

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

REACTIONS (lb/size) 1=175/5-10-14, 3=175/5-10-14
Max Horiz 1=115 (LC 13)
Max Uplift 1=-36 (LC 16), 3=-65 (LC 16)
Max Grav 1=235 (LC 22), 3=249 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-160/108, 2-3=-197/227
BOT CHORD 1-3=-53/57

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 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 3-06-00 tall by 2-00-00 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 36 lb uplift at joint 1 and 65 lb uplift at joint 3.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	V3	Valley	1	1	Job Reference (optional) I52488952

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:15:05 Page: 1
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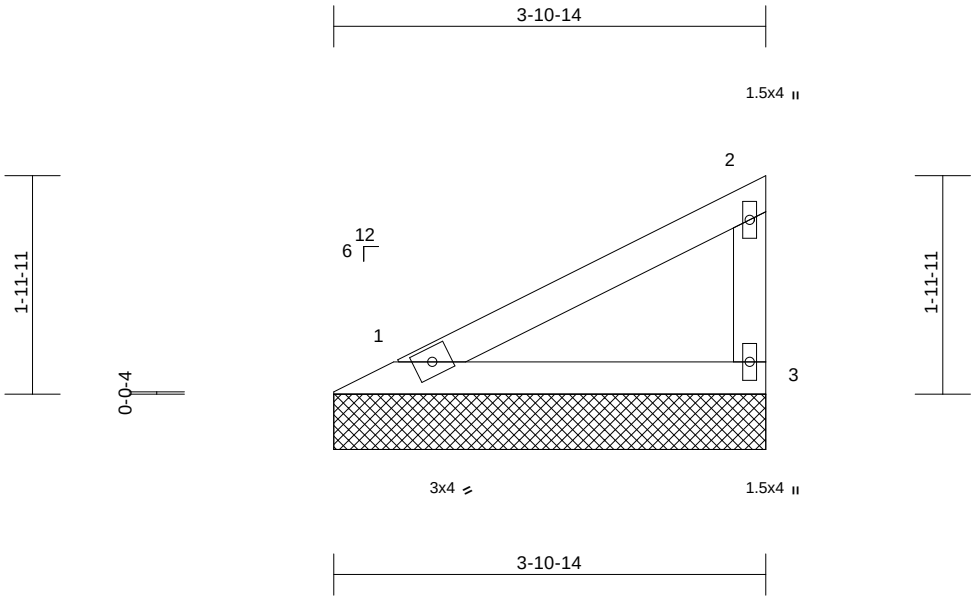

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 13 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-11-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=107/3-10-14, 3=107/3-10-14
Max Horiz 1=71 (LC 13)
Max Uplift 1=-22 (LC 16), 3=-40 (LC 16)
Max Grav 1=144 (LC 22), 3=144 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-100/67, 2-3=-112/144
BOT CHORD 1-3=-33/36

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 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 3-06-00 tall by 2-00-00 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 22 lb uplift at joint 1 and 40 lb uplift at joint 3.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	V4	Valley	1	1	I52488953 Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/21/2022

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.53 S Apr 27 2022 Print: 8.530 S Apr 27 2022 MiTek Industries, Inc. Sat Jun 11 11:15:05 Page: 1
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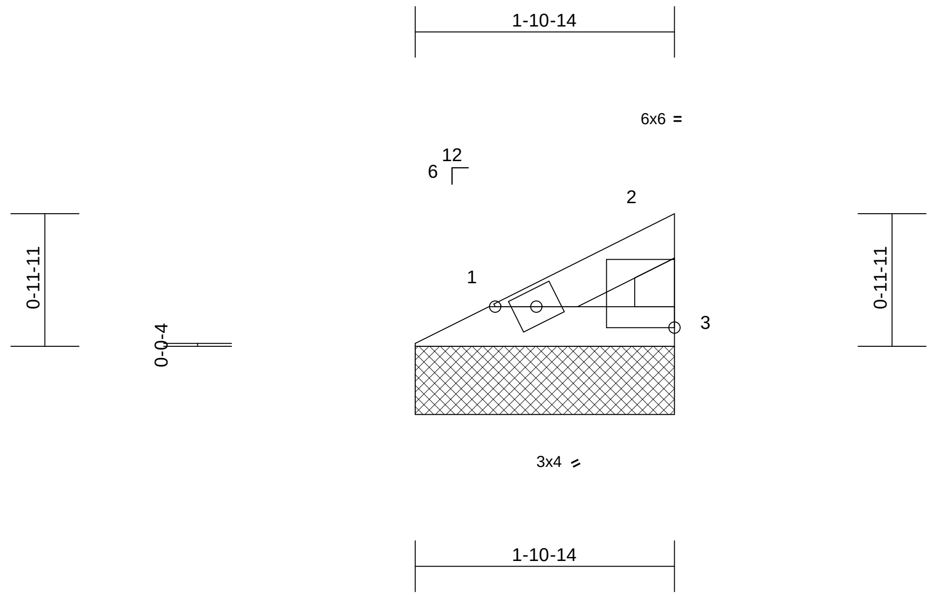

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Plate Offsets (X, Y): [2:Edge,0-1-14]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.01	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 5 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-11-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=40/1-10-14, 3=40/1-10-14
Max Horiz 1=26 (LC 13)
Max Uplift 1=-8 (LC 16), 3=-15 (LC 16)
Max Grav 1=53 (LC 2), 3=53 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-37/25, 2-3=-41/53
BOT CHORD 1-3=-12/13

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 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 3-06-00 tall by 2-00-00 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 8 lb uplift at joint 1 and 15 lb uplift at joint 3.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	V5	Valley	1	1	Job Reference (optional) I52488954

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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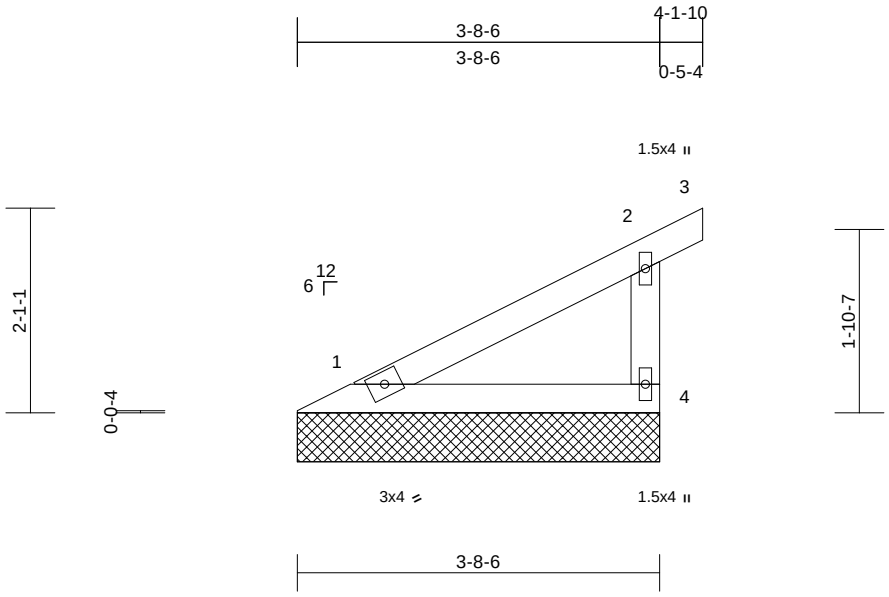

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 13 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-8-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=98/3-8-6, 4=131/3-8-6
Max Horiz 1=78 (LC 13)
Max Uplift 1=-13 (LC 16), 4=-60 (LC 16)
Max Grav 1=132 (LC 23), 4=182 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-118/72, 2-3=-20/0, 2-4=-153/182
BOT CHORD 1-4=-31/33

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 1 and 60 lb uplift at joint 4.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	V6	Valley	1	1	Job Reference (optional) I52488955

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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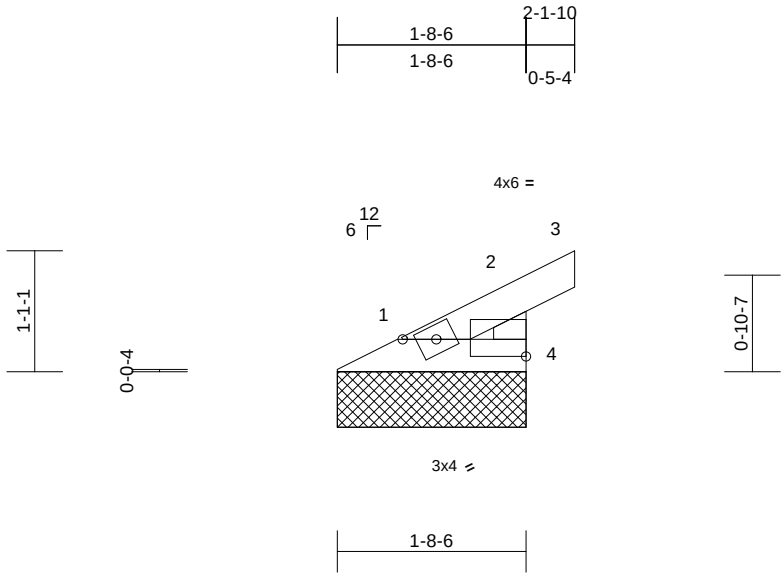

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Plate Offsets (X, Y): [2:Edge,0-1-14]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 5 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-8-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=24/1-8-6, 4=69/1-8-6
Max Horiz 1=34 (LC 13)
Max Uplift 4=-39 (LC 16)
Max Grav 1=32 (LC 31), 4=97 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-60/34, 2-3=-20/0, 2-4=-87/109
BOT CHORD 1-4=-10/11

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 4.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	V7	Valley	1	1	Job Reference (optional) I52488956

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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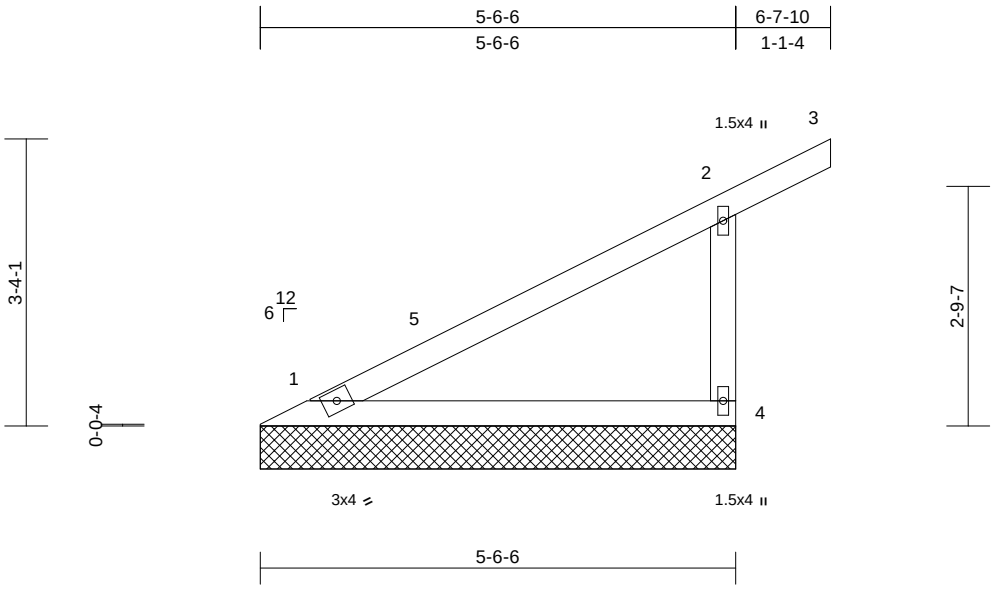

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 21 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-6-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=155/5-6-6, 4=230/5-6-6
Max Horiz 1=133 (LC 13)
Max Uplift 1=-16 (LC 16), 4=-110 (LC 16)
Max Grav 1=204 (LC 2), 4=334 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-203/125, 2-3=-43/0, 2-4=-286/318
BOT CHORD 1-4=-49/53

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-7-9 to 5-5-2, Interior (1) 5-5-2 to 6-8-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 1 and 110 lb uplift at joint 4.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	V8	Valley	1	1	Job Reference (optional) I52488957

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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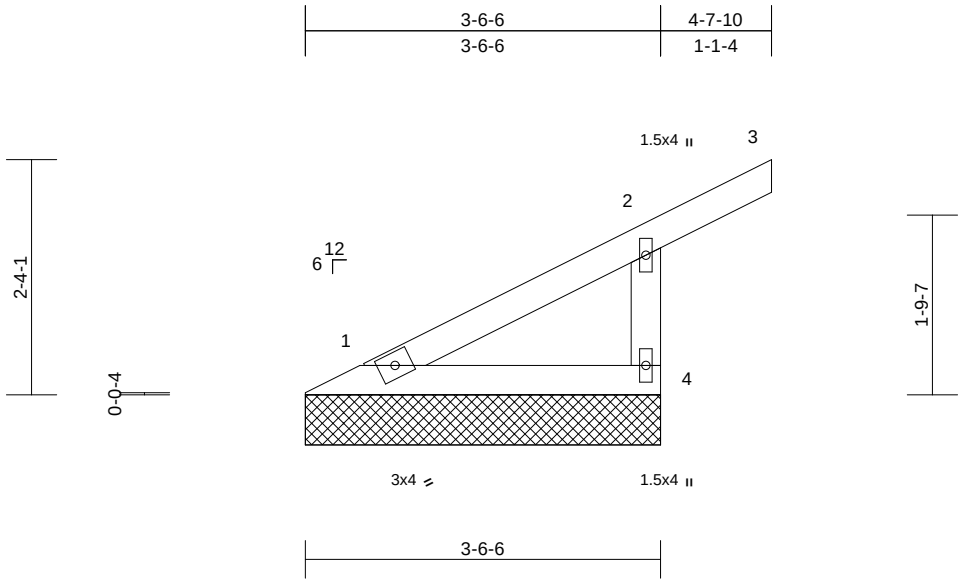

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 13 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-6-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=81/3-6-6, 4=168/3-6-6
Max Horiz 1=88 (LC 13)
Max Uplift 4=-88 (LC 16)
Max Grav 1=110 (LC 23), 4=244 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-147/85, 2-3=-42/0, 2-4=-216/249
BOT CHORD 1-4=-29/31

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 88 lb uplift at joint 4.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	V9	Valley	1	1	Job Reference (optional) I52488958

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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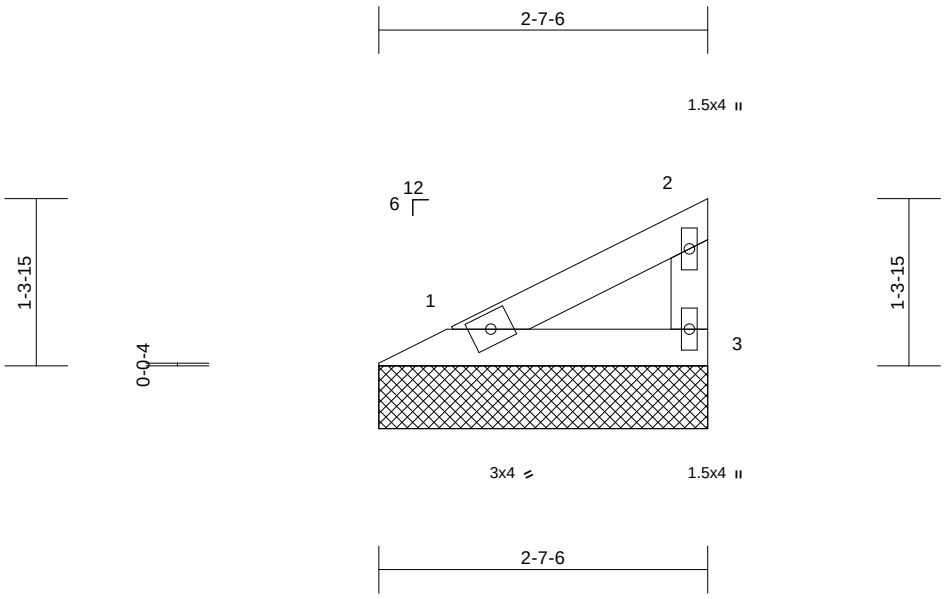

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 8 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-7-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=64/2-7-6, 3=64/2-7-6
Max Horiz 1=42 (LC 13)
Max Uplift 1=-13 (LC 16), 3=-24 (LC 16)
Max Grav 1=85 (LC 2), 3=85 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-60/40, 2-3=-66/85
BOT CHORD 1-3=-19/21

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 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 3-06-00 tall by 2-00-00 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 13 lb uplift at joint 1 and 24 lb uplift at joint 3.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 14,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - 2217 NW Killarney Ln, Lee's Summit, MO
P220296-P220296-02	V10	Valley	1	1	Job Reference (optional) I52488959

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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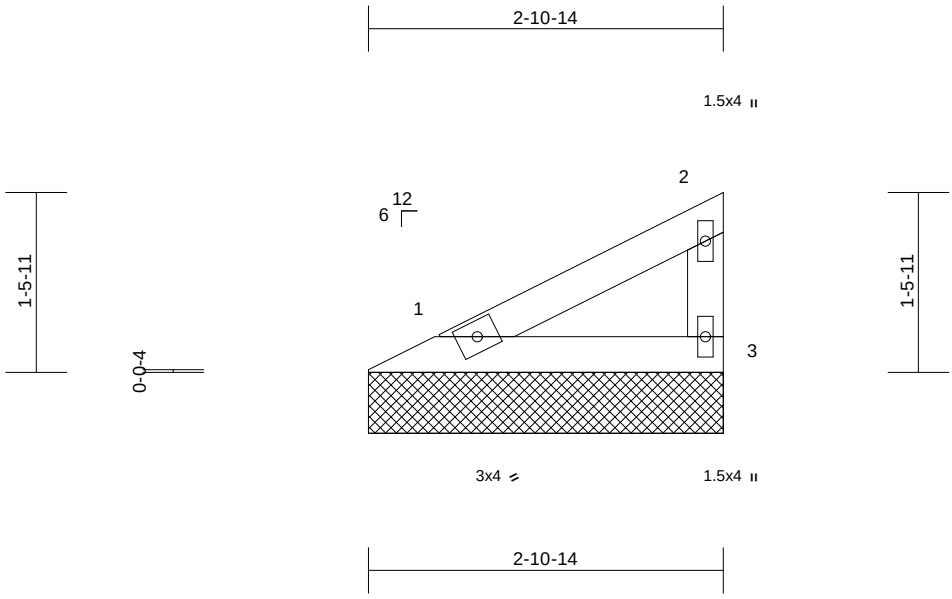


Scale = 1:18.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 9 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-11-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=74/2-10-14, 3=74/2-10-14
Max Horiz 1=49 (LC 13)
Max Uplift 1=-15 (LC 16), 3=-27 (LC 16)
Max Grav 1=98 (LC 2), 3=98 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-69/46, 2-3=-76/98
BOT CHORD 1-3=-23/24

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 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 3-06-00 tall by 2-00-00 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 15 lb uplift at joint 1 and 27 lb uplift at joint 3.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

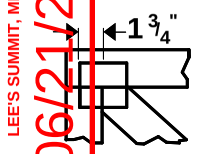
LOAD CASE(S) Standard

June 14,2022

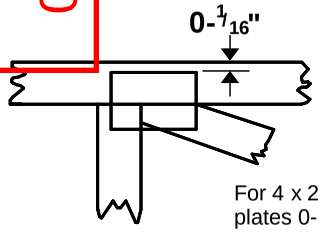
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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.

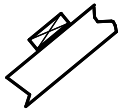
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

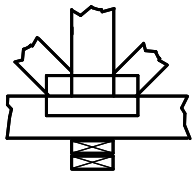
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

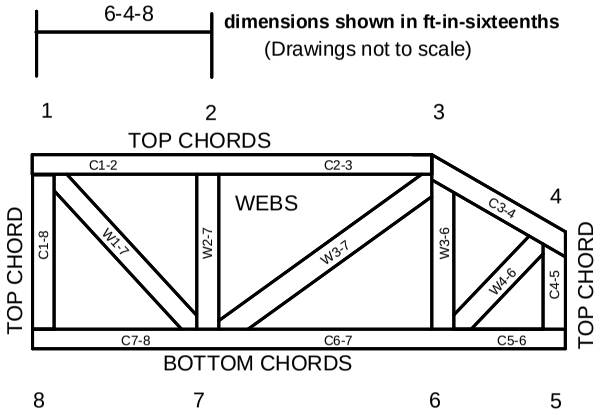


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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 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.