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MiTek USA, Inc.  
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661  
Telephone 916-755-3571

Re: 20-127801T

LONDON DESIGN BUILD

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

Pages or sheets covered by this seal: R64820163 thru R64820175

My license renewal date for the state of Washington is May 25, 2021.



December 21, 2020

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Dyer, Cecil

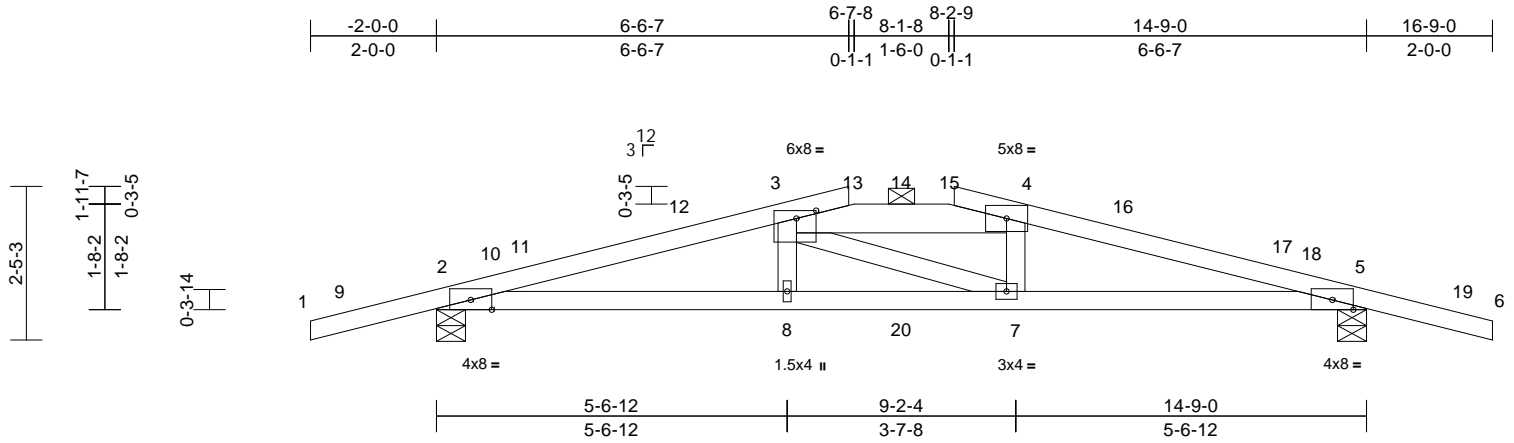
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes),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

Job 20-127801T	Truss A1	Truss Type California Girder	Qty 1	Ply 1	LONDON DESIGN BUILD Job Reference (optional)	R64820163
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BMC (Everett, WA), Everett, WA - 98201,

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Page: 1



Scale = 1:36.5

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (Roof Snow = 25.0)	25.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.26	7-8	>656	240	MT20	185/148
TCDL	7.0	Lumber DOL	1.15	BC	Vert(CT)	-0.42	7-8	>408	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	Horz(CT)	0.09	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							
										Weight: 58 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 DF 1800F 1.6E or 2x4 DF No.1&Btr  
\*Except\* 3-4:2x6 DF SS  
BOT CHORD 2x4 DF 1800F 1.6E or 2x4 DF No.1&Btr  
WEBS 2x4 HF No.2

**BRACING**

TOP CHORD Structural wood sheathing directly applied or  
2-4-15 oc purlins, except  
2-0-0 oc purlins (3-4-11 max.): 3-4.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc  
bracing.

**REACTIONS**

(size) 2=0-5-8, 5=0-5-8  
Max Horiz 2=-16 (LC 54)  
Max Grav 2=1615 (LC 34), 5=1615 (LC 34)

**FORCES**

(lb) - Maximum Compression/Maximum  
Tension  
TOP CHORD 1-9=0/14, 2-9=0/53, 2-10=-4802/0,  
10-11=-4778/0, 11-12=-4742/0,  
3-12=-4727/0, 3-13=-4623/0, 13-14=-4623/0,  
14-15=-4623/0, 4-15=-4623/0, 4-16=-4748/0,  
16-17=-4763/0, 17-18=-4799/0,  
5-18=-4823/0, 5-19=0/53, 6-19=0/14  
BOT CHORD 2-8=0/4613, 8-20=0/4603, 7-20=0/4603,  
5-7=0/4634  
WEBS 3-8=0/220, 3-7=-140/181, 4-7=0/223

**NOTES**

- 1) Wind: ASCE 7-10; Vult=110mph (3-second gust)  
Vasd=87mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat.  
II; Exp B; Enclosed; MWFRS (envelope) and C-C  
Exterior (2) -2-0-0 to 1-0-0, Interior (1) 1-0-0 to 5-8-8,  
Exterior (2) 5-8-8 to 13-3-7, Interior (1) 13-3-7 to 16-9-0  
zone; cantilever left and right exposed; end vertical left  
and right exposed; C-C for members and forces &  
MWFRS for reactions shown; Lumber DOL=1.33 plate  
grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pf=25.0 psf (flat roof snow);  
Category II; Exp B; Partially Exp.; 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 20.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 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 1-00-00 wide will fit between the bottom chord and any other members.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 224 lb down and 36 lb up at 7-4-8 on top chord, and 87 lb down at 7-4-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-3=-64, 3-4=-64, 4-6=-64, 2-5=-20  
Concentrated Loads (lb)  
Vert: 13=-592, 14=-189, 15=-592, 20=-43 (F)



December 21, 2020

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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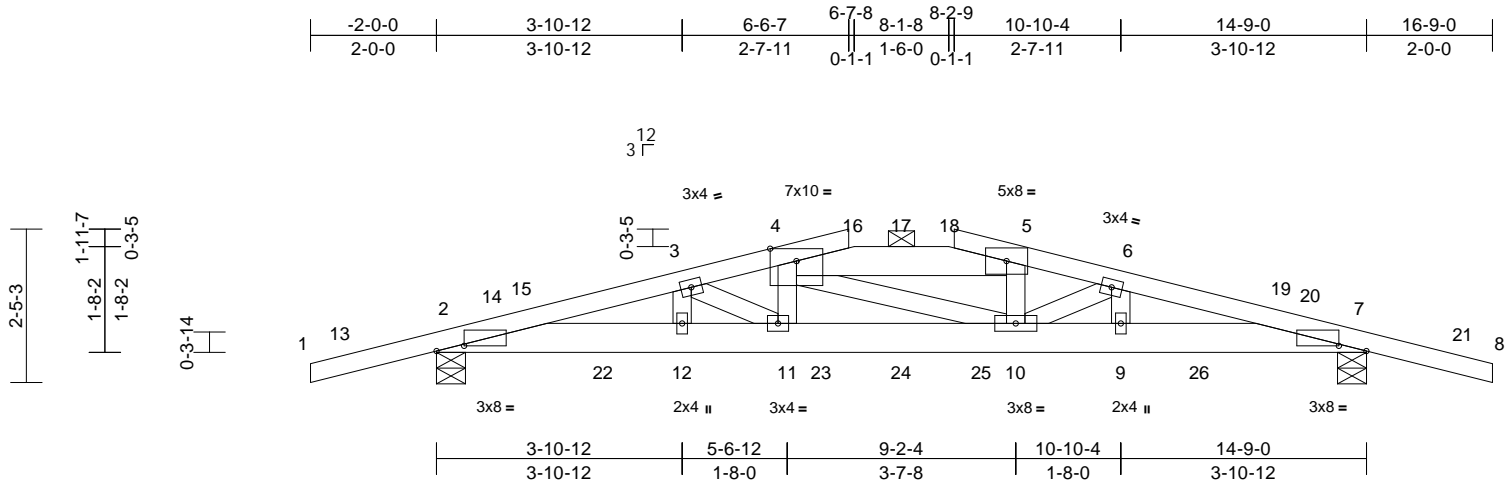
Job 20-127801T	Truss A2	Truss Type California Girder	Qty 1	Ply 1	LONDON DESIGN BUILD Job Reference (optional)	R64820164
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BMC (Everett, WA), Everett, WA - 98201,

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Page: 1

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Scale = 1:36.5

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 25.0)	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.19	10-11	>923	240	MT20	185/148
TCDL	7.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.31	10-11	>558	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.11	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S								
											Weight: 69 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 HF No.2 \*Except\* 4-5:2x6 HF No.2  
BOT CHORD 2x6 DF SS  
WEBS 2x4 HF No.2

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

**REACTIONS** (size) 2=0-5-8, 7=0-5-8  
Max Horiz 2=-17 (LC 54)  
Max Grav 2=1607 (LC 34), 7=1607 (LC 34)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-13=0/16, 2-13=0/62, 2-14=-3972/0, 14-15=-3947/0, 3-15=-3924/0, 3-4=-4266/0, 4-16=-4139/0, 16-17=-4139/0, 17-18=-4139/0, 5-18=-4139/0, 5-6=-4213/0, 6-19=-3929/0, 19-20=-3952/0, 7-20=-3977/0, 7-21=0/62, 8-21=0/16  
BOT CHORD 2-22=0/3807, 12-22=0/3807, 11-12=0/3807, 11-23=0/4190, 23-24=0/4190, 24-25=0/4190, 10-25=0/4190, 9-10=0/3812, 9-26=0/3812, 7-26=0/3812  
WEBS 4-11=0/332, 4-10=-157/55, 5-10=0/323, 3-11=-126/529, 6-10=-124/468, 6-9=-77/152, 3-12=-113/132

- Wind: ASCE 7-10; Vult=110mph (3-second gust) Vasd=87mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) 2-0-0 to 1-0-0, Interior (1) 1-0-0 to 5-8-8, Exterior (2) 5-8-8 to 13-3-7, Interior (1) 13-3-7 to 16-9-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pf=25.0 psf (flat roof snow); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 320 lb down and 57 lb up at 6-7-5, and 224 lb down and 36 lb up at 7-4-8, and 320 lb down and 57 lb up at 8-1-11 on top chord, and 87 lb down at 4-1-4, 87 lb down at 6-1-4, 87 lb down at 7-4-8, and 87 lb down at 8-7-12, and 87 lb down at 10-7-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-4=-64, 4-5=-64, 5-8=-64, 2-7=-20  
Concentrated Loads (lb)  
Vert: 9=-43 (B), 12=-43 (B), 16=-270, 17=-189, 18=-270, 22=-227 (B), 23=-43 (B), 24=-43 (B), 25=-43 (B), 26=-227 (B)



December 21, 2020

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



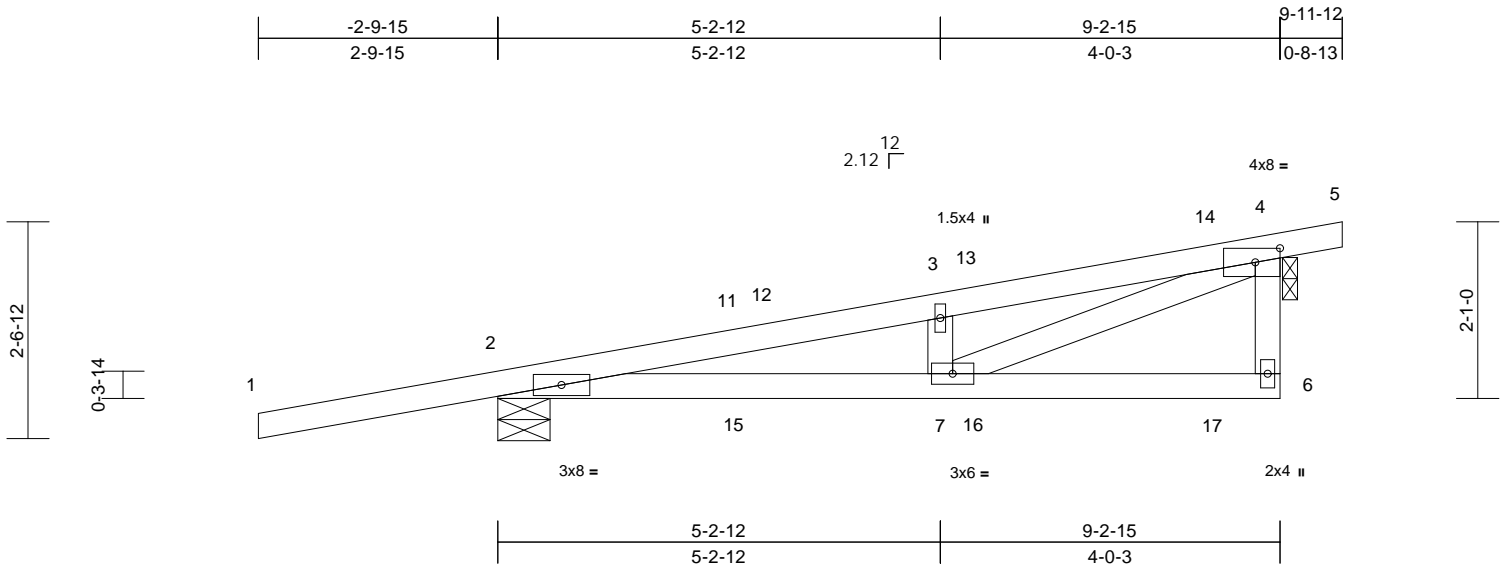
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job 20-127801T	Truss B1	Truss Type Monopitch Girder	Qty 2	Ply 1	LONDON DESIGN BUILD Job Reference (optional)	R64820165
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Page: 1



Scale = 1:27.2

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 25.0)	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	0.06	7-10	>999	240	MT20	185/148
TCDL	7.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.07	7-10	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.21	Horz(CT)	-0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								
											Weight: 35 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 DF 1800F 1.6E or 2x4 DF No.1&Btr  
 BOT CHORD 2x4 HF No.2  
 WEBS 2x4 HF 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 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-7-6, 4=0-2-2

Max Horiz 2=43 (LC 40)  
 Max Uplift 2=-45 (LC 10)  
 Max Grav 2=609 (LC 21), 4=683 (LC 21)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/56, 2-11=-1051/445, 11-12=-1044/0, 3-12=-1040/0, 3-13=-1068/0, 13-14=-1040/0, 4-14=-1000/0, 4-5=-18/0, 4-6=0/197  
 BOT CHORD 2-15=-414/1024, 7-15=-14/1024, 7-16=-19/95, 16-17=-19/95, 6-17=-19/95  
 WEBS 3-7=-305/85, 4-7=0/1018

**NOTES**

- 1) Wind: ASCE 7-10; Vult=110mph (3-second gust) Vasd=87mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3) -2-9-15 to 1-6-1, Exterior (2) 1-6-1 to 9-11-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pf=25.0 psf (flat roof snow); Category II; Exp B; Partially Exp.; 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 20.0 psf or 2.00 times flat roof load of 25.0 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 1-00-00 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 2.
- 9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 4.
- 10) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 62 lb down and 112 lb up at 2-9-8, 62 lb down and 112 lb up at 2-9-8, 49 lb down and 18 lb up at 5-7-7, 49 lb down and 18 lb up at 5-7-7, and 141 lb down and 27 lb up at 8-5-6, and 141 lb down and 27 lb up at 8-5-6 on top chord, and 2 lb down at 2-9-8, 2 lb down at 2-9-8, 19 lb down at 5-7-7, 19 lb down at 5-7-7, and 71 lb down at 8-5-6, and 71 lb down at 8-5-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 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: 1-4=-64, 4-5=-64, 6-8=-20  
 Concentrated Loads (lb)

Vert: 11=45 (F=23, B=23), 14=-183 (F=-92, B=-92), 16=-16 (F=-8, B=-8), 17=-71 (F=-36, B=-36)



December 21, 2020

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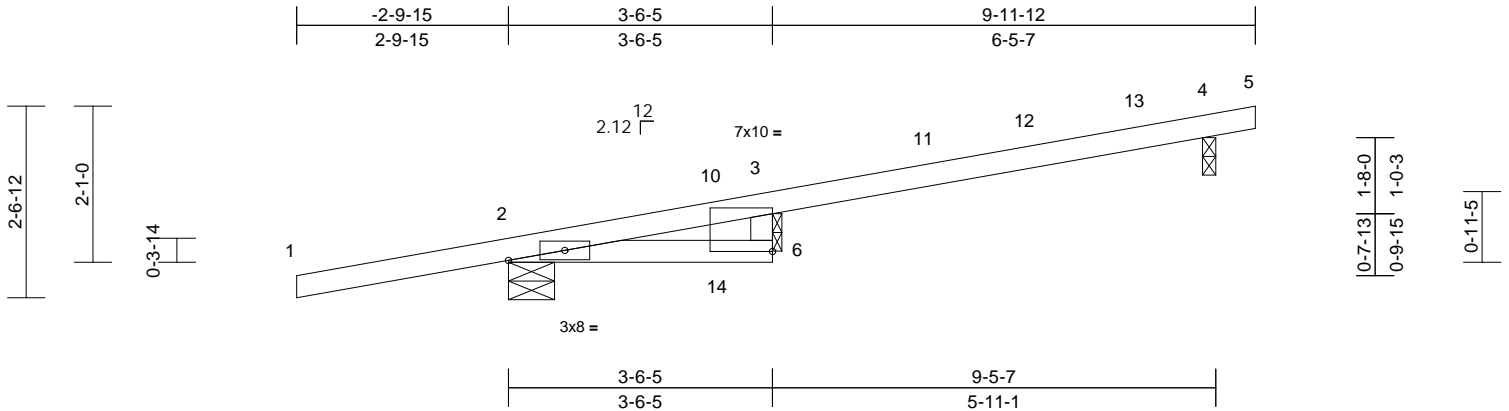
MiTek USA, Inc.  
 400 Sunrise Avenue, Suite 270  
 Roseville, CA 95661

Job 20-127801T	Truss B2	Truss Type Monopitch Girder	Qty 2	Ply 1	LONDON DESIGN BUILD Job Reference (optional)	R64820166
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BMC (Everett, WA), Everett, WA - 98201,

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Page: 1



Scale = 1:30.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 25.0)	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	0.02	6-9	>999	240	MT20	185/148
TCDL	7.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	0.02	6-9	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP								
											Weight: 22 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 DF 1800F 1.6E or 2x4 DF No.1&Btr  
BOT CHORD 2x4 HF No.2  
WEBS 2x4 HF No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 3-6-5 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-7-6, 3=0-1-8, 4=0-2-2  
Max Horiz 2=40 (LC 10)  
Max Uplift 2=-69 (LC 39), 3=-66 (LC 20), 4=-62 (LC 10)  
Max Grav 2=503 (LC 20), 3=424 (LC 21), 4=361 (LC 21)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/56, 2-10=-207/451, 3-10=-47/29, 3-11=-54/11, 11-12=-22/7, 12-13=-22/7, 4-13=-18/53, 4-5=-12/0, 3-6=-62/44  
BOT CHORD 2-14=-419/178, 6-14=-8/9

- This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 3, 4.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 66 lb uplift at joint 3, 69 lb uplift at joint 2 and 62 lb uplift at joint 4.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 3, 4.
- Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 43 lb down and 112 lb up at 2-9-8, 43 lb down and 112 lb up at 2-9-8, 49 lb down and 21 lb up at 5-7-7, 51 lb down and 21 lb up at 5-8-2, and 141 lb down and 27 lb up at 8-5-6, and 143 lb down and 27 lb up at 8-6-1 on top chord, and 7 lb down at 2-9-8, and 7 lb down at 2-9-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-3=-64, 3-5=-64, 6-7=-20  
Concentrated Loads (lb)  
Vert: 10=45 (F=23, B=23), 11=-2 (F), 13=-185 (F=-93, B=-92)



December 21, 2020

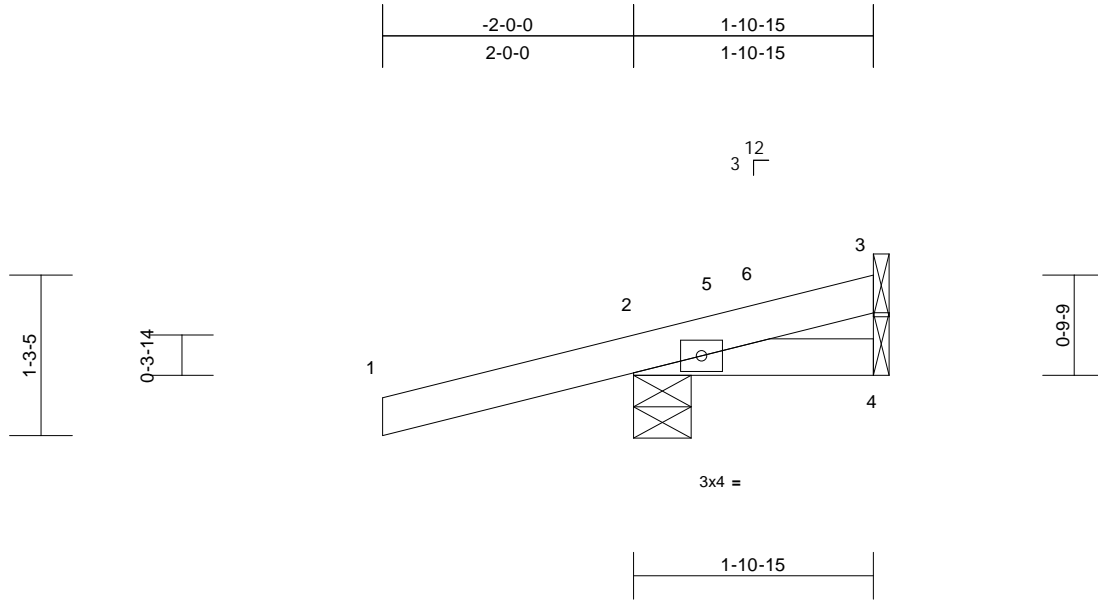


Job 20-127801T	Truss J2A	Truss Type Jack-Open	Qty 8	Ply 1	LONDON DESIGN BUILD Job Reference (optional)	R64820167
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BMC (Everett, WA), Everett, WA - 98201,

Run: 8.43 S Nov 30 2020 Print: 8.430 S Nov 30 2020 MiTek Industries, Inc. Sun Dec 20 15:08:50  
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	0.00	2-4	>999	240	MT20	185/148
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	2-4	>999	180		
TCDL	7.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0											
											Weight: 7 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 HF No.2  
BOT CHORD 2x4 HF No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-5-8, 3= Mechanical, 4= Mechanical  
Max Horiz 2=23 (LC 10)  
Max Uplift 2=-63 (LC 10), 3=-116 (LC 20)  
Max Grav 2=393 (LC 20), 3=13 (LC 10), 4=37 (LC 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/53, 2-5=-37/4, 5-6=-35/5, 3-6=-33/7  
BOT CHORD 2-4=0/0

- 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 1-00-00 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 2 and 116 lb uplift at joint 3.
- LOAD CASE(S)** Standard

- NOTES**
- 1) Wind: ASCE 7-10; Vult=110mph (3-second gust) Vasd=87mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -2-0-0 to 1-0-0, Interior (1) 1-0-0 to 1-10-13 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-10; Pf=25.0 psf (flat roof snow); Category II; Exp B; Partially Exp.; 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 20.0 psf or 2.00 times flat roof load of 25.0 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.



December 21, 2020

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



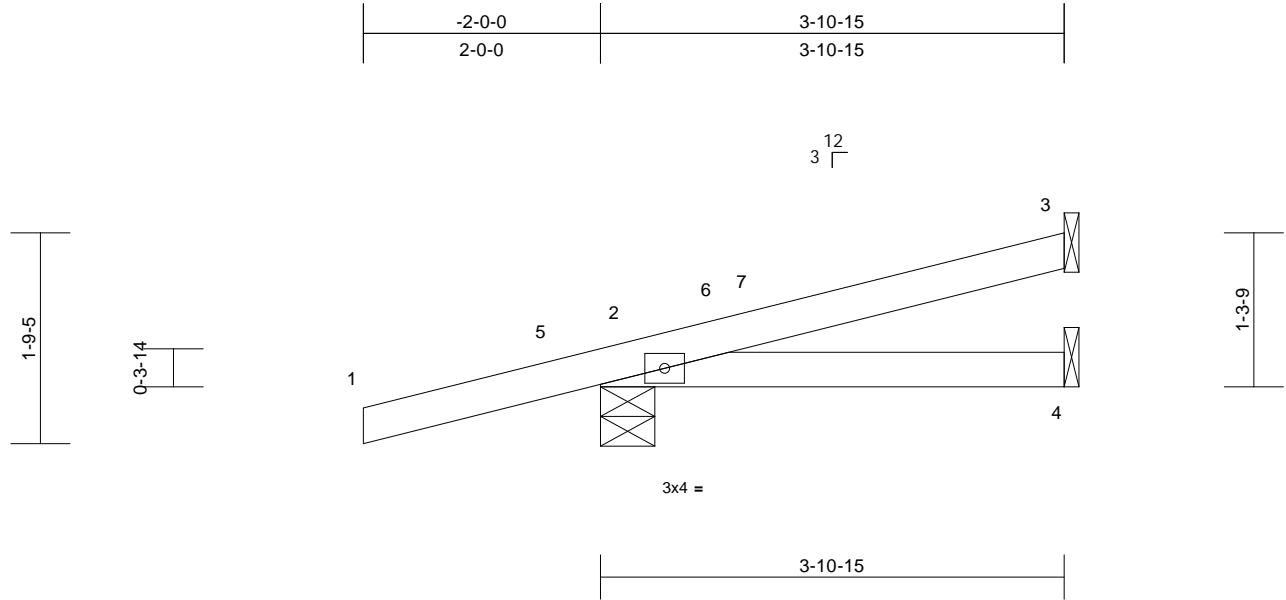
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job 20-127801T	Truss J2B	Truss Type Jack-Open	Qty 4	Ply 1	LONDON DESIGN BUILD Job Reference (optional)	R64820168
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.01	2-4	>999	240	MT20	185/148
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.02	2-4	>999	180		
TCDL	7.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0											
											Weight: 12 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 HF No.2  
BOT CHORD 2x4 HF No.2

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

**REACTIONS** (size) 2=0-5-8, 3= Mechanical, 4= Mechanical  
Max Horiz 2=33 (LC 10)  
Max Uplift 2=-55 (LC 10), 3=-53 (LC 20)  
Max Grav 2=394 (LC 20), 3=86 (LC 21), 4=72 (LC 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-5=0/38, 2-5=0/53, 2-6=-44/3, 6-7=-31/5, 3-7=-23/16  
BOT CHORD 2-4=0/0

- 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 1-00-00 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 53 lb uplift at joint 3 and 55 lb uplift at joint 2.
- LOAD CASE(S)** Standard

- NOTES**
- 1) Wind: ASCE 7-10; Vult=110mph (3-second gust) Vasd=87mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -2-0-0 to 1-0-0, Interior (1) 1-0-0 to 3-10-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-10; Pf=25.0 psf (flat roof snow); Category II; Exp B; Partially Exp.; 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 20.0 psf or 2.00 times flat roof load of 25.0 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.



December 21, 2020

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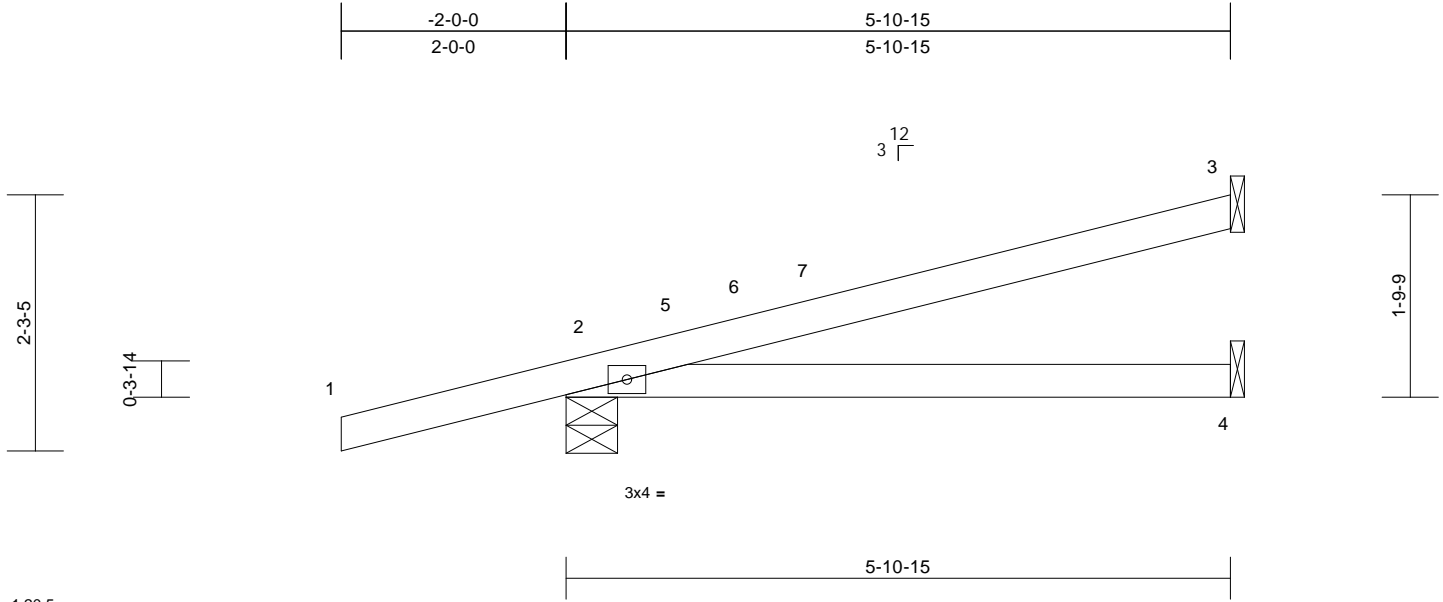
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job 20-127801T	Truss J2C	Truss Type Jack-Open	Qty 4	Ply 1	LONDON DESIGN BUILD Job Reference (optional)	R64820169
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 25.0)	25.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.06	2-4	>999	240	MT20	185/148
TCDL	7.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.13	2-4	>523	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P								
											Weight: 16 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 HF No.2  
BOT CHORD 2x4 HF No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-10-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-5-8, 3= Mechanical, 4= Mechanical  
Max Horiz 2=42 (LC 10)  
Max Uplift 2=-47 (LC 10), 3=-31 (LC 14)  
Max Grav 2=422 (LC 21), 3=182 (LC 21), 4=112 (LC 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/53, 2-5=-57/4, 5-6=-34/6, 6-7=-31/8, 3-7=-29/36  
BOT CHORD 2-4=0/0

- 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 1-00-00 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 31 lb uplift at joint 3 and 47 lb uplift at joint 2.
- LOAD CASE(S)** Standard

- NOTES**
- 1) Wind: ASCE 7-10; Vult=110mph (3-second gust) Vasd=87mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -2-0-0 to 1-0-0, Interior (1) 1-0-0 to 5-10-3 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-10; Pf=25.0 psf (flat roof snow); Category II; Exp B; Partially Exp.; 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 20.0 psf or 2.00 times flat roof load of 25.0 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.



December 21, 2020

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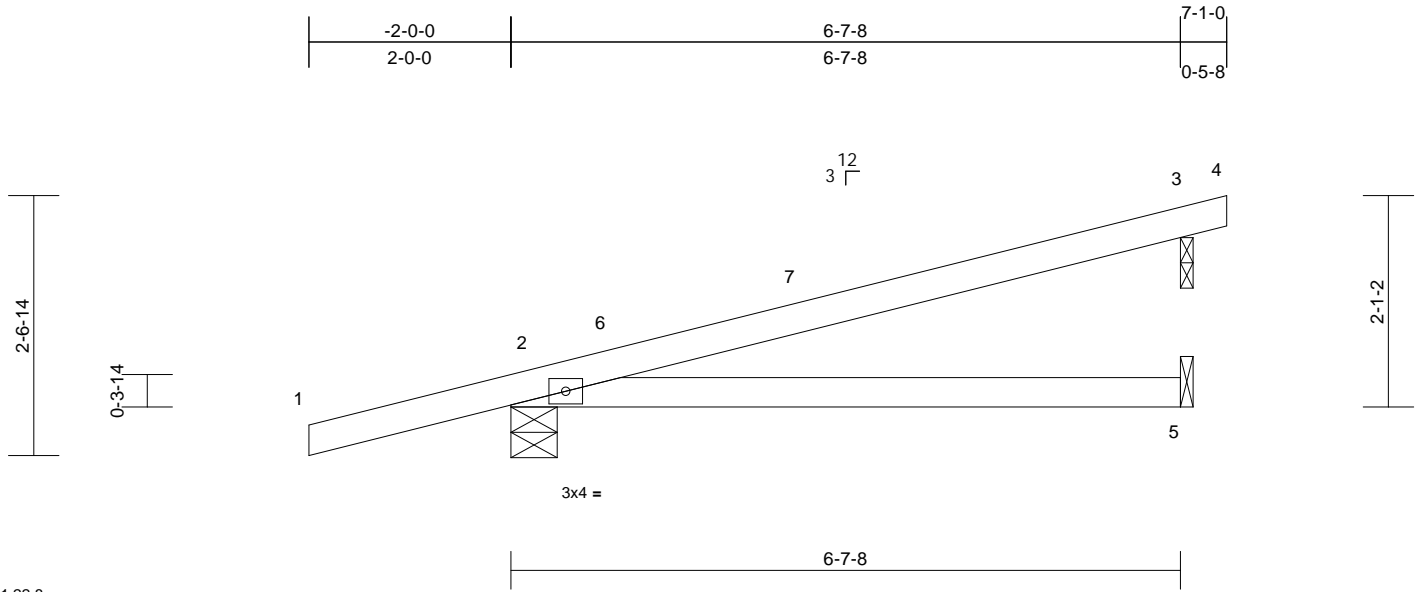


Job 20-127801T	Truss J2D	Truss Type Jack-Open	Qty 2	Ply 1	LONDON DESIGN BUILD Job Reference (optional)	R64820170
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Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (Roof Snow = 25.0)	25.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.10	2-5	>731	240	MT20	185/148
TCDL	7.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.21	2-5	>366	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P								
											Weight: 19 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 HF No.2  
BOT CHORD 2x4 HF No.2

**BRACING**

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

**REACTIONS**

(size) 2=0-5-8, 3=0-1-8, 5= Mechanical  
Max Horiz 2=48 (LC 10)  
Max Uplift 2=-45 (LC 10), 3=-40 (LC 14)  
Max Grav 2=453 (LC 21), 3=253 (LC 21),  
5=127 (LC 5)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/53, 2-6=-63/3, 6-7=-36/9, 3-7=-34/43,  
3-4=-11/0  
BOT CHORD 2-5=0/0

**NOTES**

- 1) Wind: ASCE 7-10; Vult=110mph (3-second gust)  
Vasd=87mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -2-0-0 to 1-0-0, Interior (1) 1-0-0 to 7-1-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pf=25.0 psf (flat roof snow); Category II; Exp B; Partially Exp.; 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 20.0 psf or 2.00 times flat roof load of 25.0 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 1-00-00 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 at joint(s) 3.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 2 and 40 lb uplift at joint 3.
  - 10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 3.
- LOAD CASE(S)** Standard



December 21, 2020

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



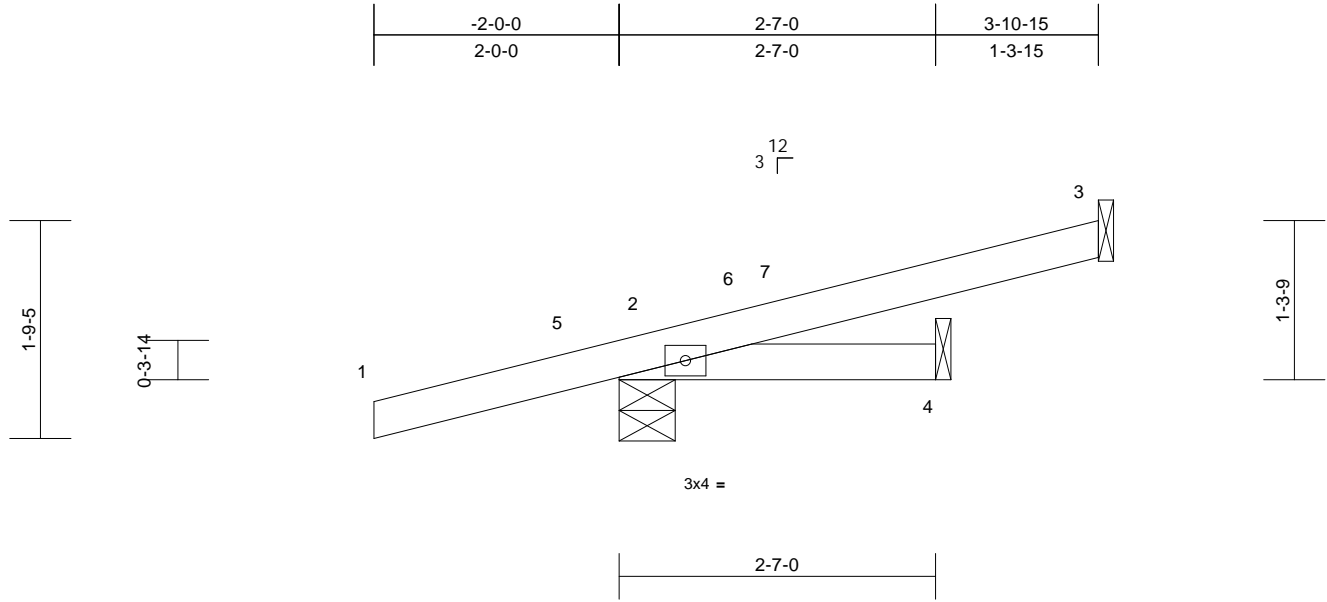
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job 20-127801T	Truss J2E	Truss Type Jack-Open	Qty 2	Ply 1	LONDON DESIGN BUILD Job Reference (optional)	R64820171
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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	0.00	2-4	>999	240	MT20	185/148
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	2-4	>999	180		
TCDL	7.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0										Weight: 10 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 HF No.2  
BOT CHORD 2x4 HF No.2

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

**REACTIONS** (size) 2=0-5-8, 3= Mechanical, 4= Mechanical  
Max Horiz 2=33 (LC 10)  
Max Uplift 2=-63 (LC 10), 3=-53 (LC 20)  
Max Grav 2=381 (LC 20), 3=86 (LC 21), 4=46 (LC 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-5=0/38, 2-5=0/53, 2-6=-44/3, 6-7=-31/5, 3-7=-23/16  
BOT CHORD 2-4=0/0

- 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 1-00-00 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 53 lb uplift at joint 3 and 63 lb uplift at joint 2.
- LOAD CASE(S)** Standard

- NOTES**
- 1) Wind: ASCE 7-10; Vult=110mph (3-second gust) Vasd=87mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -2-0-0 to 1-0-0, Interior (1) 1-0-0 to 3-10-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-10; Pf=25.0 psf (flat roof snow); Category II; Exp B; Partially Exp.; 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 20.0 psf or 2.00 times flat roof load of 25.0 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.



December 21, 2020

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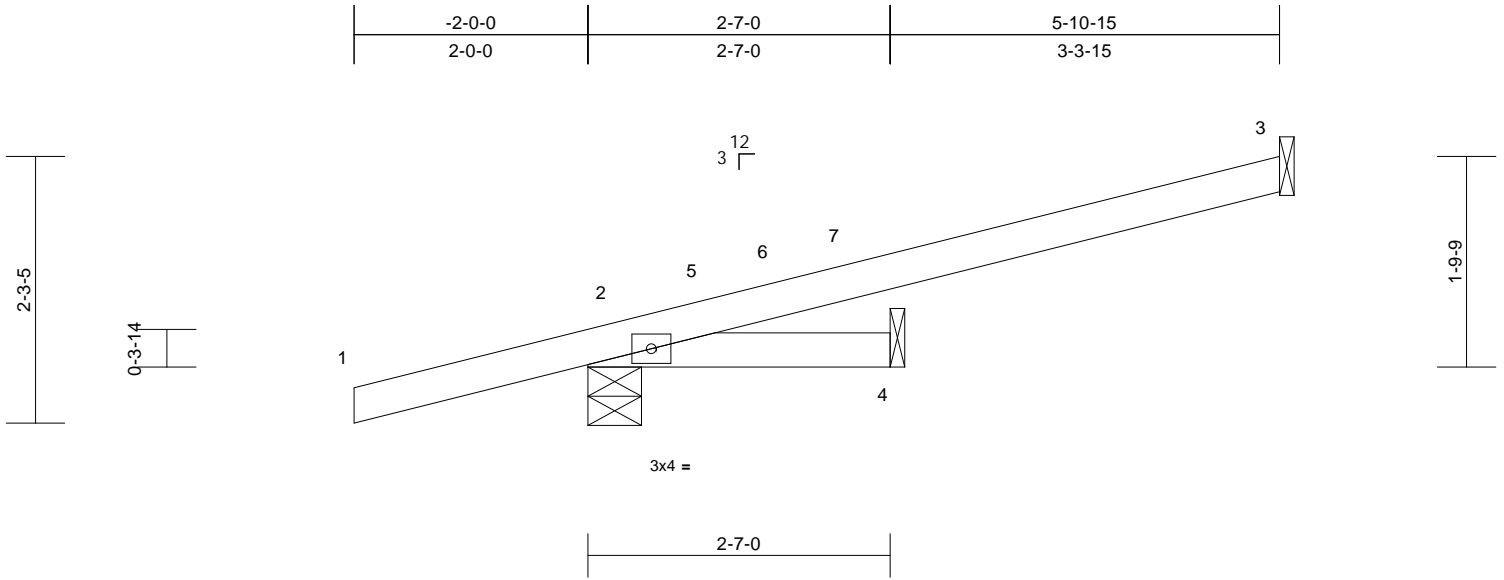


Job 20-127801T	Truss J2F	Truss Type Jack-Open	Qty 2	Ply 1	LONDON DESIGN BUILD Job Reference (optional)	R64820172
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Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	0.00	2-4	>999	240	MT20	185/148
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	2-4	>999	180		
TCDL	7.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0											
											Weight: 13 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 HF No.2  
BOT CHORD 2x4 HF No.2

**BRACING**

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

**REACTIONS** (size) 2=0-5-8, 3= Mechanical, 4= Mechanical  
Max Horiz 2=42 (LC 10)  
Max Uplift 2=-67 (LC 10), 3=-31 (LC 14)  
Max Grav 2=388 (LC 21), 3=182 (LC 21), 4=46 (LC 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/53, 2-5=-57/4, 5-6=-34/6, 6-7=-32/8, 3-7=-29/36  
BOT CHORD 2-4=0/0

**NOTES**

- 1) Wind: ASCE 7-10; Vult=110mph (3-second gust) Vasd=87mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -2-0-0 to 1-0-0, Interior (1) 1-0-0 to 5-10-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pf=25.0 psf (flat roof snow); Category II; Exp B; Partially Exp.; 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 20.0 psf or 2.00 times flat roof load of 25.0 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 1-00-00 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 31 lb uplift at joint 3 and 67 lb uplift at joint 2.

**LOAD CASE(S)** Standard



December 21, 2020

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400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

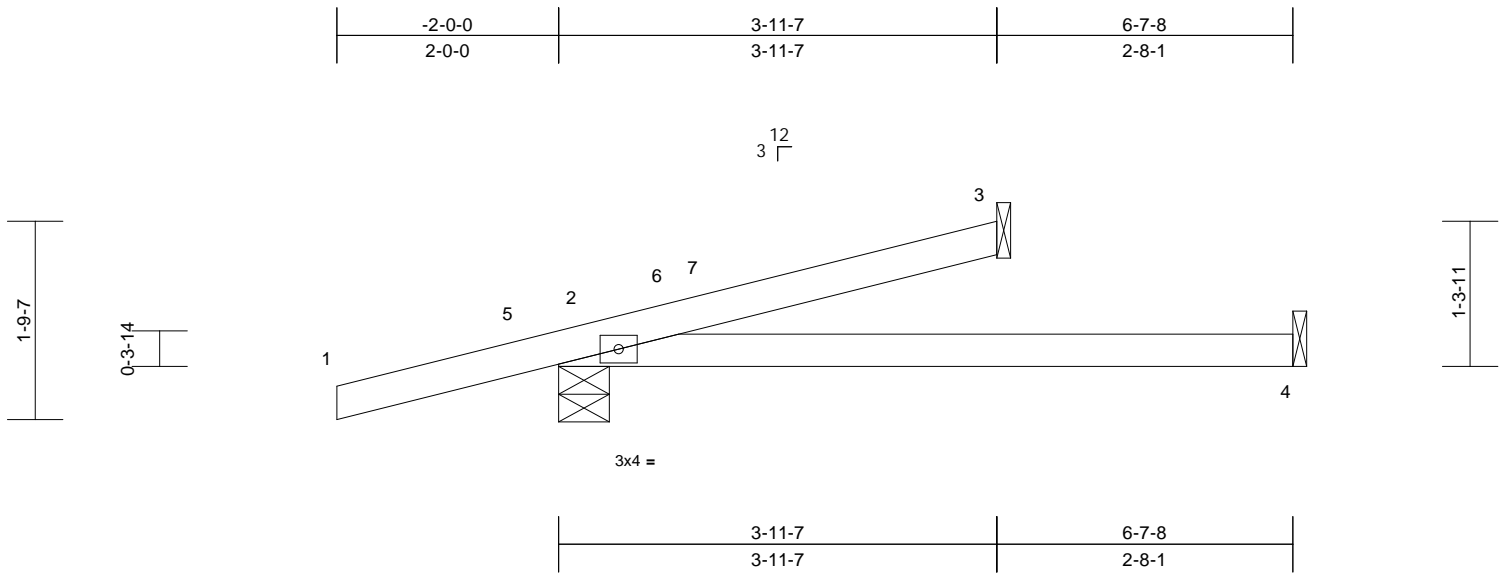
Job 20-127801T	Truss J2H	Truss Type Jack-Open	Qty 2	Ply 1	LONDON DESIGN BUILD Job Reference (optional)	R64820173
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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.10	2-4	>731	240	MT20	185/148
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.21	2-4	>366	180		
TCDL	7.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0											
											Weight: 15 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 HF No.2  
BOT CHORD 2x4 HF No.2

**BRACING**

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

**REACTIONS** (size) 2=0-5-8, 3= Mechanical, 4= Mechanical  
Max Horiz 2=33 (LC 10)  
Max Uplift 2=-38 (LC 10), 3=-52 (LC 20)  
Max Grav 2=420 (LC 20), 3=88 (LC 21), 4=127 (LC 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-5=0/39, 2-5=0/53, 2-6=-44/3, 6-7=-31/4, 3-7=-23/16  
BOT CHORD 2-4=0/0

**NOTES**

- 1) Wind: ASCE 7-10; Vult=110mph (3-second gust) Vasd=87mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -2-0-0 to 1-0-0, Interior (1) 1-0-0 to 3-10-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pf=25.0 psf (flat roof snow); Category II; Exp B; Partially Exp.; 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 20.0 psf or 2.00 times flat roof load of 25.0 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 1-00-00 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 52 lb uplift at joint 3 and 38 lb uplift at joint 2.

**LOAD CASE(S)** Standard



December 21, 2020

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

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



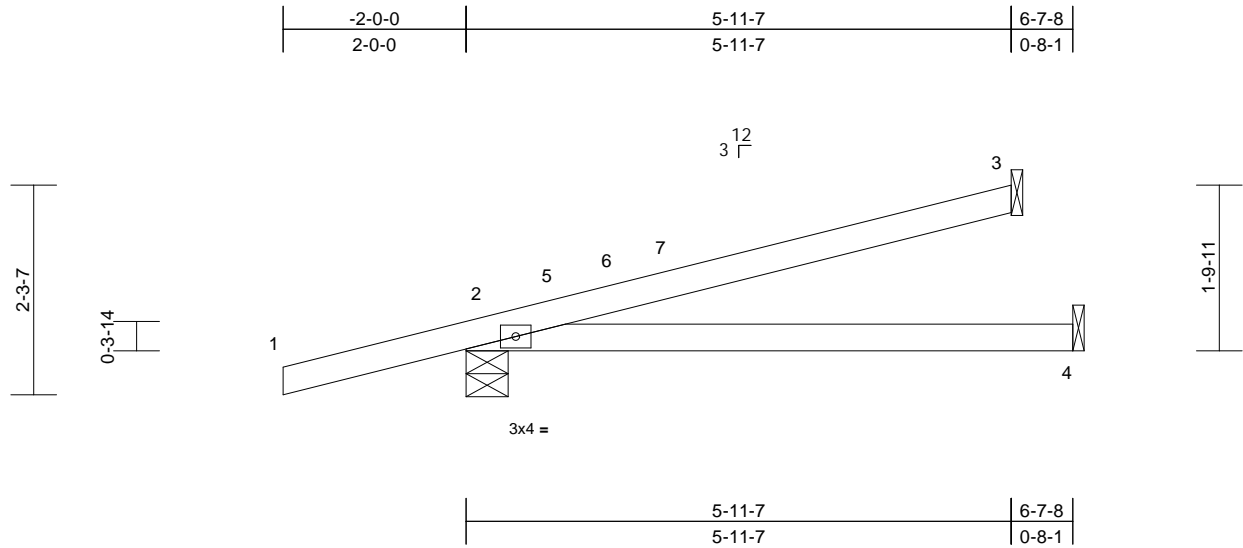
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job 20-127801T	Truss J2I	Truss Type Jack-Open	Qty 2	Ply 1	LONDON DESIGN BUILD Job Reference (optional)	R64820174
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BMC (Everett, WA), Everett, WA - 98201,

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Page: 1



Scale = 1:25.2

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.10	2-4	>731	240	MT20	185/148
(Roof Snow = 25.0)		Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.21	2-4	>366	180		
TCDL	7.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-P								
BCDL	10.0											
											Weight: 17 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 HF No.2  
BOT CHORD 2x4 HF No.2

**BRACING**

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

**REACTIONS** (size) 2=0-5-8, 3= Mechanical, 4= Mechanical  
Max Horiz 2=42 (LC 10)  
Max Uplift 2=-43 (LC 10), 3=-31 (LC 14)  
Max Grav 2=430 (LC 21), 3=184 (LC 21), 4=127 (LC 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/53, 2-5=-57/3, 5-6=-34/6, 6-7=-30/8, 3-7=-28/36  
BOT CHORD 2-4=0/0

**NOTES**

- 1) Wind: ASCE 7-10; Vult=110mph (3-second gust) Vasd=87mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -2-0-0 to 1-0-0, Interior (1) 1-0-0 to 5-10-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pf=25.0 psf (flat roof snow); Category II; Exp B; Partially Exp.; 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 20.0 psf or 2.00 times flat roof load of 25.0 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 1-00-00 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 31 lb uplift at joint 3 and 43 lb uplift at joint 2.

**LOAD CASE(S)** Standard



December 21, 2020

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



MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661



Job 20-127801T	Truss J2K	Truss Type Jack-Open Girder	Qty 2	Ply 1	LONDON DESIGN BUILD Job Reference (optional)	R64820175
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BMC (Everett, WA), Everett, WA - 98201,

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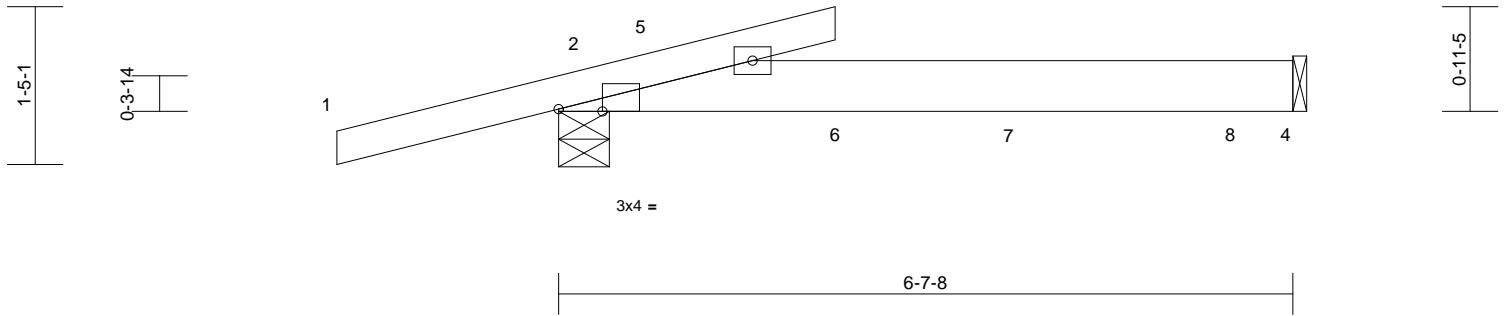
Page: 1



$\frac{12}{3}$  F

VERTICAL SUPPORT OF FREE END OF CHORD IS REQUIRED.

3x4 =



Scale = 1:20.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (Roof Snow = 25.0)	25.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.05	2-4	>999	240	MT20	185/148
TCDL	7.0	Lumber DOL	1.15	BC	Vert(CT)	-0.11	2-4	>695	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							
										Weight: 20 lb	FT = 20%

**LUMBER**

TOP CHORD 2x4 HF No.2  
BOT CHORD 2x6 DF SS

**BRACING**

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

**REACTIONS**

(size) 2=0-5-8, 4= Mechanical  
Max Horiz 2=32 (LC 10)  
Max Grav 2=686 (LC 20), 4=242 (LC 5)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/62, 2-5=-63/0, 3-5=-46/0  
BOT CHORD 2-6=0/0, 6-7=0/0, 7-8=0/0, 4-8=0/0

**NOTES**

- 1) Wind: ASCE 7-10; Vult=110mph (3-second gust)  
Vasd=87mph; TCCL=4.2psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) -2-0-0 to 1-0-0, Interior (1) 1-0-0 to 2-5-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pf=25.0 psf (flat roof snow); Category II; Exp B; Partially Exp.; 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 20.0 psf or 2.00 times flat roof load of 25.0 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 1-00-00 wide will fit between the bottom chord and any other members.

- 7) Refer to girder(s) for truss to truss connections.
  - 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 11 lb down at 4-0-12, and 16 lb down at 6-0-12 on bottom chord. The design/selection of such connection device (s) is the responsibility of others.
  - 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- LOAD CASE(S)** Standard
- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-3=-64, 2-4=-20  
Concentrated Loads (lb)  
Vert: 6=-424, 7=-3 (B), 8=-8 (B)



December 21, 2020

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

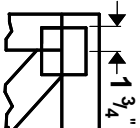
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



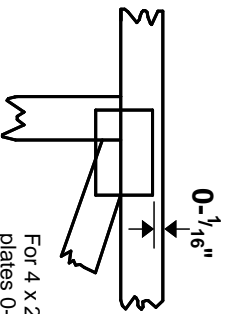
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

# 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

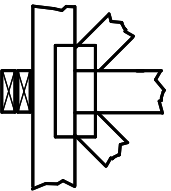
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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



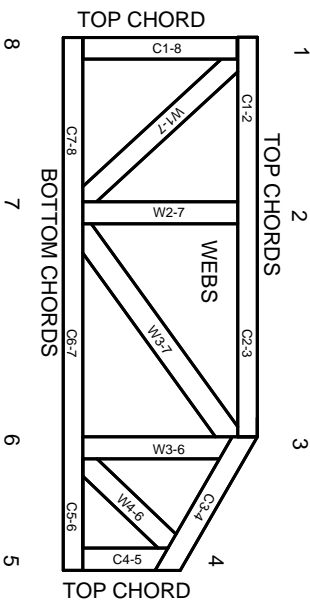
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

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# 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 T or 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.



MITek Engineering Reference Sheet: Mill-7473 rev. 5/19/2020