

Job 72290794REP1	Truss A4	Truss Type Truss	Qty 1	Ply 1	SD - LANCASTER BEH RCH NO TRAY Job Reference (optional)
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UFP Mid Atlantic LLC, 5631 S. NC 62, Burlington, NC, JMP

Run: 8.62 S Sep 22 2022 Print: 8.620 S Sep 22 2022 MiTek Industries, Inc. Fri Dec 02 10:55:30

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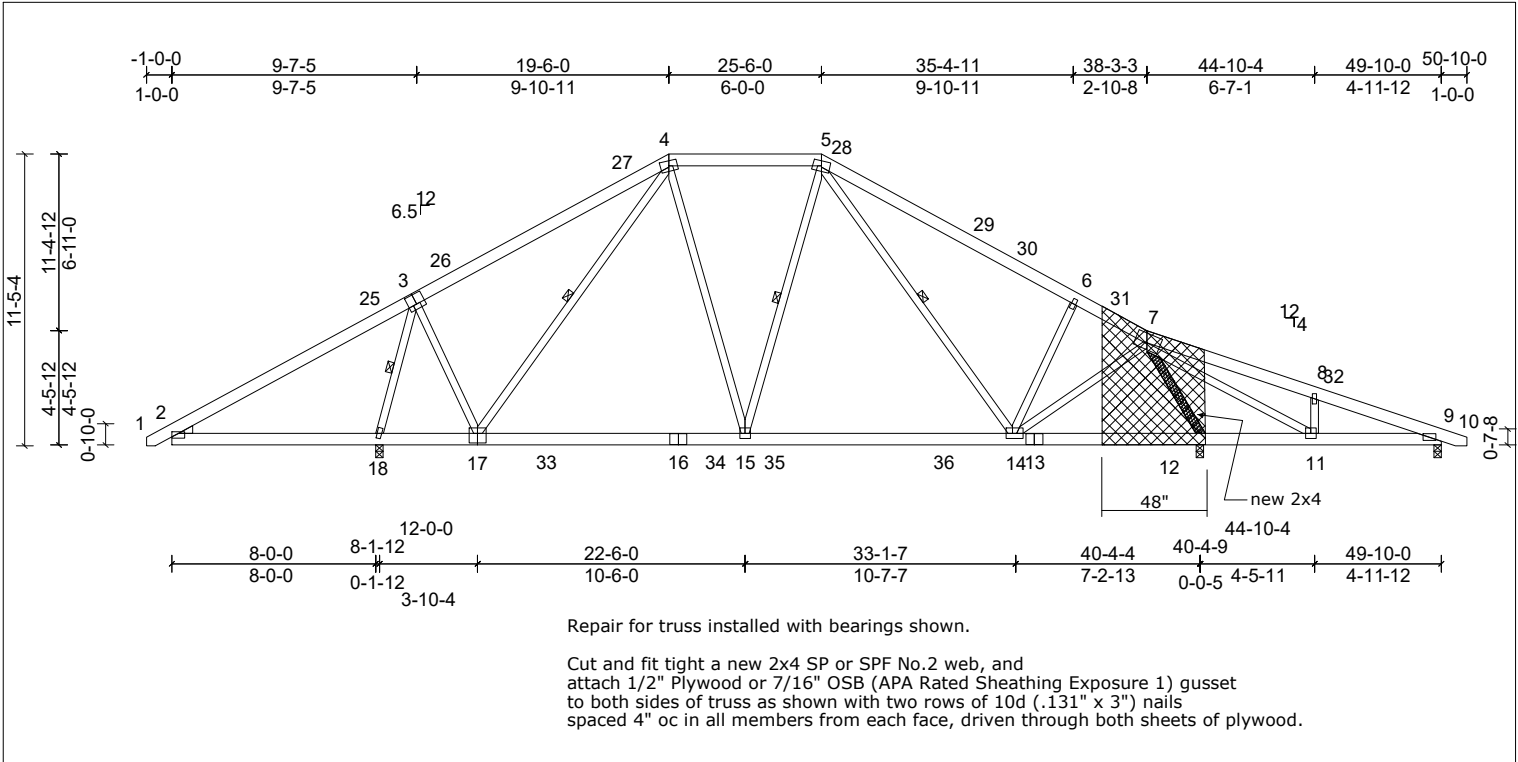


Plate Offsets (X, Y): [3:0-4-0,0-4-12], [4:0-4-0,0-2-4], [5:0-4-0,0-2-4], [7:0-5-12,0-4-4], [17:0-4-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.12	14-15	>999	240	MT20	244/190
Snow (Ps/Pg)	15.4/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.20	14-15	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	Horz(CT)	0.02	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0									Weight: 375 lb	FT = 20%

LUMBER		BRACING	
TOP CHORD	2x6 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 3-11-15 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD	2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt
WEDGE	Left: 2x4 SP No.2		4-17, 5-15, 5-14, 3-18
<b>REACTIONS</b>	(lb/size)		
	9=215/0-3-8, (min. 0-1-8), 12=1622/0-3-8, (min. 0-2-13), 18=1833/0-3-8, (min. 0-2-10)		
	Max Horiz 18=-234 (LC 12)		
	Max Uplift 9=-117 (LC 11), 12=-273 (LC 15), 18=-286 (LC 14)		
	Max Grav 9=341 (LC 45), 12=1797 (LC 2), 18=2203 (LC 39)		
<b>FORCES</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.		
TOP CHORD	2-25=-394/626, 3-25=-352/772, 3-26=-745/141, 26-27=-552/168, 4-27=-456/192, 4-5=-983/265, 5-28=-1033/328, 28-29=-1188/325, 29-30=-1237/293, 6-30=-1376/276, 6-31=-1331/243, 7-31=-1390/235, 7-8=-333/318, 8-32=-193/279, 9-32=-266/249		
BOT CHORD	2-18=-536/436, 17-18=-103/326, 17-33=0/923, 16-33=0/923, 16-34=0/923, 15-34=0/923, 15-35=0/977, 35-36=0/977, 14-36=0/977, 13-14=0/408, 12-13=0/408, 11-12=-638/298		
WEBS	3-17=-11/867, 4-17=-737/225, 4-15=-30/510, 7-11=-332/958, 8-11=-469/244, 7-14=-139/1190, 3-18=-2061/537, 6-14=-767/343, 7-12=-1886/441		

- NOTES (13)**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (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
  - \*\*TCLL: ASCE 7-10; Pr=20.0 psf (roof live load); Lumber DOL=1.15 Plate DOL=1.15; Pg=20.0 psf (ground snow); Ps=varies (min. roof snow=15.4 psf Lumber DOL=1.15 Plate DOL=1.15) see load cases; Category II; Exp B; Partially Exp.; 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.
  - Roof design snow load has been reduced to account for slope.
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 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 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 117 lb uplift at joint 9, 286 lb uplift at joint 18 and 273 lb uplift at joint 12.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This repair has been prepared based on information and use conditions supplied by client. Designer has made a good faith effort to outline damage and repair conditions as reported by client. When actual field conditions do not approximate those indicated on this drawing, client shall immediately inform the engineer and refrain from applying the repair.

**LOAD CASE(S)**

Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-4=-51, 4-5=-61, 5-7=-51, 7-10=-51, 19-22=-20



This design is based upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of the Building Designer. Building Designer shall verify all design information on this sheet for conformance with conditions and requirements of the specific building and governing codes and ordinances. Building Designer accepts responsibility for the correctness or accuracy of the design information as it may relate to a specific building. Certification is valid only when truss is fabricated by a UFPI plant. Bracing shown is for lateral support of truss members only and does not replace erection and permanent bracing. Refer to Building Component Safety Information (BCSI) for general guidance regarding storage, erection and bracing available from SBCA and Truss Plate Institute.



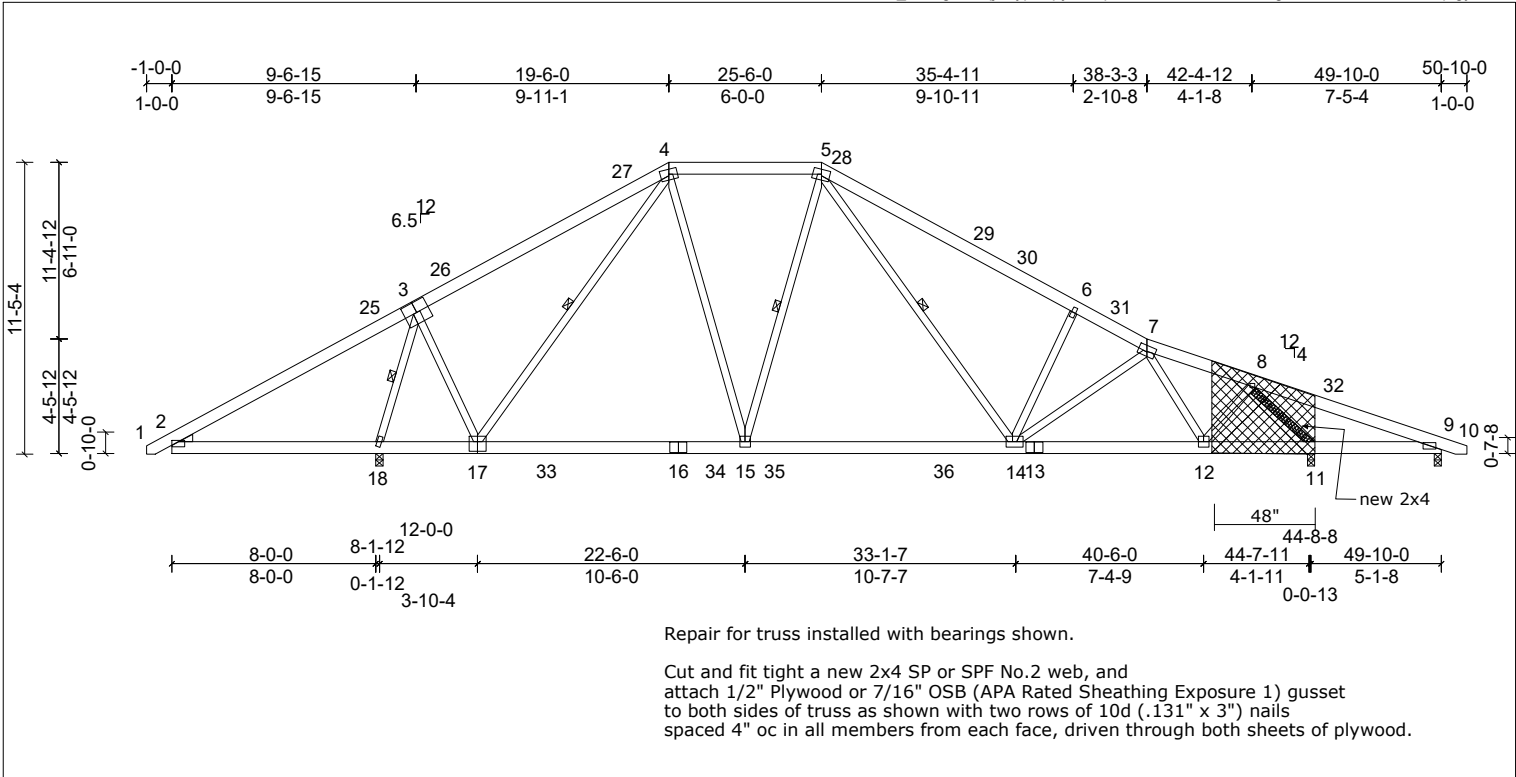
Job 72290794REP1	Truss A5	Truss Type Truss	Qty 2	Ply 1	SD - LANCASTER BEH RCH NO TRAY Job Reference (optional)
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Repair for truss installed with bearings shown.

Cut and fit tight a new 2x4 SP or SPF No.2 web, and attach 1/2" Plywood or 7/16" OSB (APA Rated Sheathing Exposure 1) gusset to both sides of truss as shown with two rows of 10d (.131" x 3") nails spaced 4" oc in all members from each face, driven through both sheets of plywood.

Plate Offsets (X, Y): [4:0-4-0,0-2-4], [5:0-4-0,0-2-4], [7:0-4-0,0-2-12], [17:0-4-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.14	14-15	>999	240	MT20 244/190
Snow (Ps/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.24	14-15	>999	180	
TCDL	10.0	Rep Stress Incr	NO	WB	0.77	Horz(CT)	0.04	11	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0										Weight: 371 lb FT = 20%

LUMBER	BRACING
TOP CHORD: 2x6 SP No.2 *Except* T4:2x6 SP No.1	TOP CHORD: Structural wood sheathing directly applied or 4-2-2 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD: 2x6 SP No.2	BOT CHORD: Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS: 2x4 SP No.3	WEBS: 1 Row at midpt
WEDGE: Left: 2x4 SP No.2	

REACTIONS	(lb/size)	9=56/0-3-8, (min. 0-1-8), 11=1739/0-3-8, (min. 0-3-0), 18=1987/0-3-8, (min. 0-2-13)
Max Horiz	18=-234 (LC 12)	
Max Uplift	9=-275 (LC 51), 11=-279 (LC 15), 18=-290 (LC 14)	
Max Grav	9=85 (LC 45), 11=1926 (LC 2), 18=2375 (LC 39)	

FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-25=-393/625, 3-25=-351/771, 3-26=-845/153, 26-27=-652/179, 4-27=-551/204, 4-5=-1208/310, 5-28=-1754/474, 28-29=-1908/472, 29-30=-1958/440, 6-30=-2103/423, 6-31=-2049/387, 7-31=-2122/380, 7-8=-1340/303, 8-32=-115/933, 9-32=-128/900
BOT CHORD	2-18=-536/436, 17-18=-79/347, 17-33=0/1075, 16-33=0/1075, 16-34=0/1075, 15-34=0/1075, 15-35=0/1239, 35-36=0/1239, 14-36=0/1239, 13-14=-153/1624, 12-13=-153/1624, 11-12=-119/749, 9-11=-854/187
WEBS	3-17=-37/993, 4-17=-877/253, 4-15=-56/664, 5-15=-312/194, 5-14=-248/813, 8-12=0/973, 7-14=-29/497, 7-12=-842/85, 3-18=-2237/573, 6-14=-805/364, 8-11=-2254/455

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