

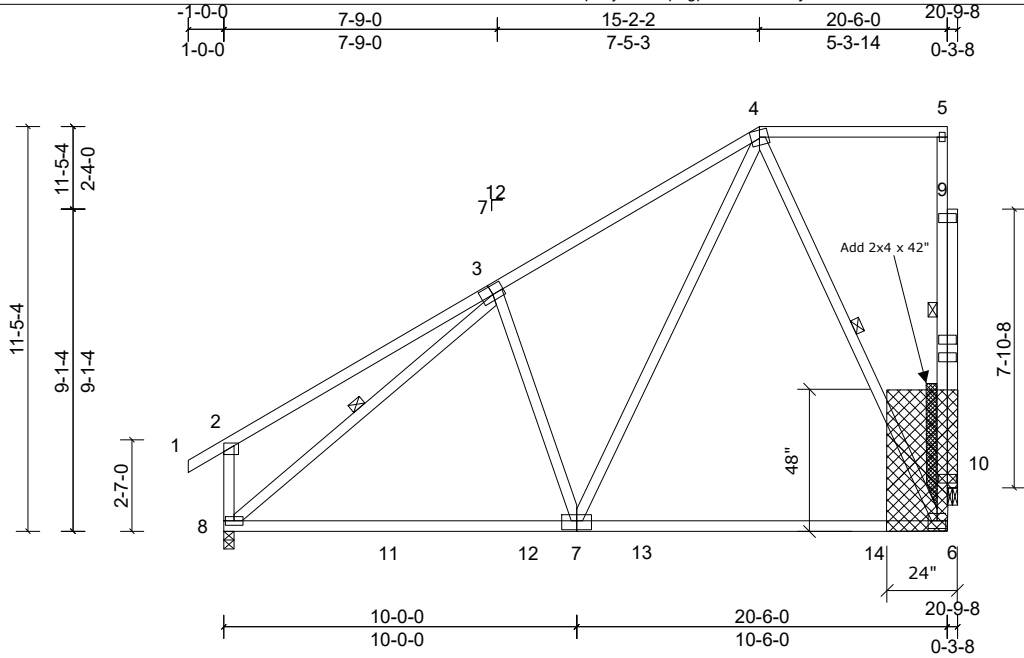
Job 70018419REPA2	Truss A3	Truss Type Truss	Qty 5	Ply 1	DAN RYAN/MIDDLETON 10 TRAY VAULT Job Reference (optional)
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UFP Mid Atlantic LLC, 5631 S. NC 62, Burlington, NC, clm

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Repair for a section of the vertical missing between joints 6 and 10.

Add a new 2x4 SP or SPF No.2 beside the damaged vertical as indicated, 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 4" oc in all members from each face, driven through both sheets of plywood.

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

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	0.95	Vert(LL)	-0.44	6-7	>555	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.67	6-7	>365	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.56	Horz(CT)	-0.04	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MSH							Weight: 158 lb	FT = 20%

LUMBER		BRACING	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 5-1-11 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD	2x4 SP No.1	BOT CHORD	Rigid ceiling directly applied or 6-3-12 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt
OTHERS	2x4 SP No.3		5-6, 4-6, 3-8
REACTIONS			
(lb/size)	8=879/0-3-8, (min. 0-1-8), 10=806/0-3-8, (min. 0-1-8)		
Max Horiz	8=345 (LC 10)		
Max Uplift	8=62 (LC 10), 10=205 (LC 10)		
Max Grav	8=959 (LC 17), 10=891 (LC 2)		
FORCES			
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.			
TOP CHORD	2-3=-268/220, 3-4=-863/162, 6-10=-214/835, 2-8=-361/238		
BOT CHORD	8-11=-308/783, 11-12=-308/783, 7-12=-308/783, 7-13=-121/324, 13-14=-121/324, 6-14=-121/324		
WEBS	3-7=-386/338, 4-7=-193/826, 4-6=-730/294, 3-8=-769/0		

- NOTES (11)**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=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 exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are 3x6 MT20 unless otherwise indicated.
  - 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.
  - Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 62 lb uplift at joint 8 and 205 lb uplift at joint 10.
  - 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.



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.

