Job	Truss	Truss Type	Qty	Ply	PBS\GUILFORD TRAD B RF CAFE
72418061REP1	BA1	Truss	2	1	Job Reference (optional)

UFP Mid Atlantic LLC, 5631 S. NC 62, Burlington, NC, clm — Run: 8.73 S Jan 4 2024 Print: 8.730 S Jan 4 2024 MiTek Industries, Inc. Mon Jul 29 09:57:25 — Page: 1

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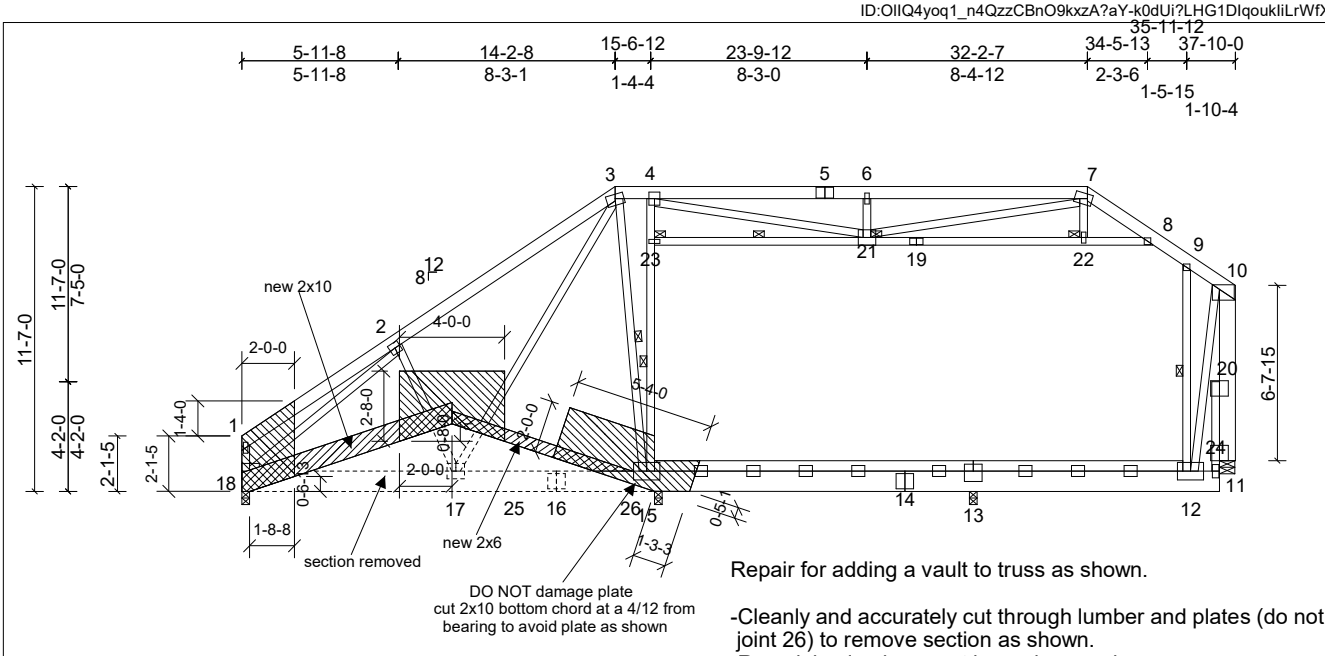


Repair for adding a vault to truss as shown.

-Cleanly and accurately cut through lumber and plates (do not damaged plate at joint 26) to remove section as shown.
-Remaining lumber must be undamaged.
-Remaining plates must be undamaged and fully imbedded.
-Cut and fit tight new 2x10 SPF No.2 bottom chord section as shown.
-Cut and fit tight new 2x6 SPF No.2 bottom chord section as shown.
-Attach 3/4in. OSB (23/32in. APA Rated Sheathing 48/24 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 OSB.

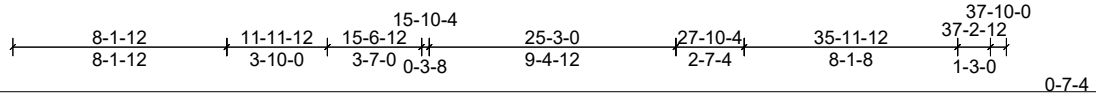


Plate Offsets (X, Y): [3:0-4-0,0-2-0], [7:0-2-4,0-2-0], [10:0-6-12,0-2-0], [13:0-4-0,0-3-4], [24:0-4-0,0-3-0]

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	0.51	Vert(LL)	-0.10	13-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.12	13-15	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.84	Horz(CT)	-0.01	24	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MSH		Attic	-0.10	13-15	>999	360	Weight: 459 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.2
BOT CHORD	2x10 SP No.2 *Except* B4,B3:1-1/2x4-3/4 SP No.2
WEBS	2x4 SP No.3 *Except* W6,W11,W10,W7:2x4 SP No.2
OTHERS	2x8 SP No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-3-1 max.): 3-7.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 11-12.
WEBS	1 Row at midpt 3-15, 15-23, 9-12, 21-23
JOINTS	1 Brace at Jt(s): 21, 22, 23

REACTIONS All bearings 0-3-8. except 24=0-7-0

(lb) - Max Horiz 18=382 (LC 7)
Max Uplift All uplift 100 (lb) or less at joint(s) 18 except 15=-303 (LC 7), 24=-139 (LC 6)
Max Grav All reactions 250 (lb) or less at joint(s) except 13=1214 (LC 16), 15=1733 (LC 24), 18=645 (LC 1), 24=904 (LC 2)

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

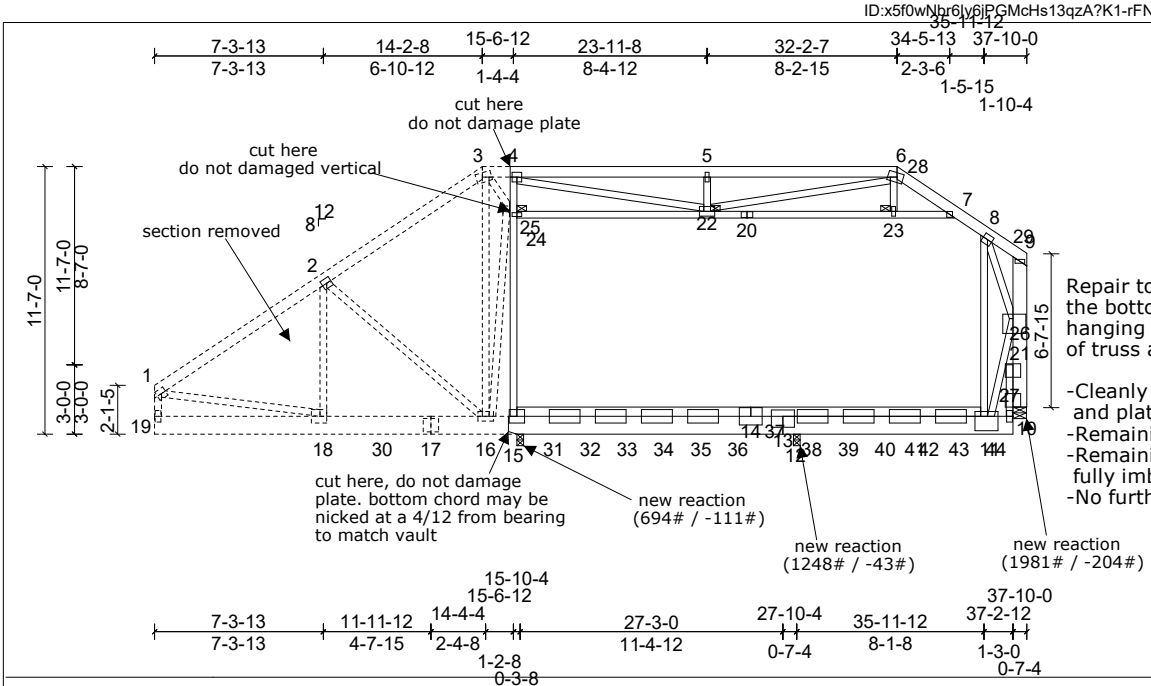
TOP CHORD	2-3=-631/337, 3-4=-284/265, 4-5=-2074/798, 5-6=-2074/798, 6-7=-2074/798, 7-8=-1175/404, 8-9=-511/294, 11-24=-104/338, 20-24=-644/233, 10-20=-648/234
BOT CHORD	17-18=-206/560
WEBS	3-17=-214/516, 3-15=-457/232, 15-23=-1015/365, 4-23=-968/380, 9-12=-994/213, 19-21=-246/881, 19-22=-252/881, 8-22=-257/881, 4-21=-628/2014, 6-21=-468/240, 7-21=-424/1110, 2-17=-388/322, 2-18=-590/116, 10-12=-133/761

NOTES (14)

1) Unbalanced roof live loads have been considered for this design.
2) 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
3) Provide adequate drainage to prevent water ponding.
4) All plates are 5x6 MT20 unless otherwise indicated.
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, with BCDL = 10.0psf.
7) Ceiling dead load (5.0 psf) on member(s). 8-9, 21-23, 21-22, 8-22
8) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 13-15, 12-13
9) Bearing at joint(s) 24 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18 except (jt=lb) 15=302, 24=138.
11) 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.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Attic room checked for L/360 deflection.
14) 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.

Job	Truss	Truss Type	Qty	Ply	PBS\GUILFORD TRAD B RF CAFE
72418061REP1	BA1L	Truss	1	4	Job Reference (optional)



Repair to remove all additional load from the bottom chord (no floor trusses or beams hanging into the truss) and to stub left end of truss as shown.

-Cleanly and accurately cut through lumber and plates to remove section shown.
-Remaining lumber must be undamaged.
-Remaining plates must be undamaged and fully imbedded.
-No further truss repair required.

Plate Offsets (X, Y): [3:0-3-4,0-2-4], [6:0-3-4,0-2-4], [11:0-6-8,0-2-8], [13:0-6-0,0-3-4], [18:0-3-8,0-3-8], [26:0-5-4,0-2-4], [27:0-4-0,0-3-0]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.07	11-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.10	11-12	>999	180	M18AHS	186/179
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.97	Horz(CT)	0.01	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MSH		Attic	-0.07	11-12	>999	360	Weight: 1881 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.2
BOT CHORD	1-1/2x4-3/4 SP No.2 *Except* B5:2x10 SP 2400F 2.0E, B1,B2:2x10 SP No.2
WEBS	2x4 SP No.3 *Except* W8,W14,W13,W17,W9:2x4 SP No.2
OTHERS	2x8 SP No.2

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.): 3-6.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 10-11.
JOINTS	1 Brace at Jt(s): 22, 23, 24, 25

This truss requires both edges of the bottom chord be sheathed in the room area.

REACTIONS All bearings 0-3-8. except 27=0-7-0

(lb) - Max Horiz 19=254 (LC 5)
Max Uplift All uplift 100 (lb) or less at joint(s) 15 except 19=-164 (LC 8), 27=-789 (LC 4)
Max Grav All reactions 250 (lb) or less at joint(s) except 12=9038 (LC 14), 15=1303 (LC 14), 19=1287 (LC 16), 27=9293 (LC 16)

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

TOP CHORD	1-2=-1543/227, 2-3=-1646/297, 3-4=-1315/236, 4-5=-2102/560, 5-6=-2102/560, 6-28=-1331/304, 7-28=-1842/346, 7-8=-2129/324, 9-29=-257/60, 1-19=-1193/193, 10-27=-2196/396, 21-27=-11411/1120, 21-26=-11487/1128
BOT CHORD	18-30=-255/1342, 17-30=-255/1342, 16-17=-255/1342, 15-16=-183/1347, 15-31=-198/1312, 31-32=-193/1334, 32-33=-189/1352, 33-34=-185/1373, 34-35=-182/1395, 35-36=-178/1419, 14-36=-174/1439, 14-37=-251/747, 13-37=-267/735, 12-13=0/2781, 12-38=-189/1629, 38-39=-193/1608, 39-40=-196/1582, 40-41=-201/1556, 41-42=-152/1104, 42-43=-156/1080, 11-43=-160/1058, 11-44=-1050/138, 10-44=-1050/138
WEBS	3-16=-286/786, 15-24=-619/279, 4-24=-588/289, 8-11=-116/728, 20-22=-125/401, 20-23=-129/400, 7-23=-132/399, 1-18=-166/1173, 4-22=-367/1206, 5-22=-301/151, 6-22=-267/791, 2-18=-357/69, 8-26=-3193/408, 11-26=-909/8652

NOTES (19)

1) Special connection required to distribute bottom chord loads equally between all plies.
2) 4-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: 2x10 - 2 rows staggered at 0-9-0 oc, 2x5 - 2 rows staggered at 0-4-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
Attach TC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 oc.
Attach BC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 oc.
3) 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.
4) Unbalanced roof live loads have been considered for this design.
5) 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; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) All plates are 7x16 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) Ceiling dead load (5.0 psf) on member(s). 7-8, 22-24, 22-23, 7-23
12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 12-15, 11-12
13) Bearing at joint(s) 27 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15 except (jt=lb) 19=164, 27=789.
15) 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.
16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
17) Use MiTek JUS46 (With 4-16d nails into Girder & 4-16d nails into Truss) or equivalent spaced at 1-10-11 oc max. starting at 17-3-11 from the left end to 36-5-15 to connect truss(es) F21 (1 ply 2x4 SP), F23 (1 ply 2x4 SP), F26 (1 ply 2x4 SP), F23 (1 ply 2x4 SP) to front face of bottom chord.
18) Fill all nail holes where hanger is in contact with lumber.
19) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 9839 lb down and 1067 lb up at 32-11-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
20) Attic room checked for L/360 deflection.
21) 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.

Continued on page 2