

Job 72418064REP1	Truss F21	Truss Type Truss	Qty 6	Ply 1	PBS\GUILFORD TRAD B 2FLR Job Reference (optional)
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UFP Mid Atlantic LLC, 5631 S. NC 62, Burlington, NC, Chawn Duty

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Wed Aug 07 19:50:59

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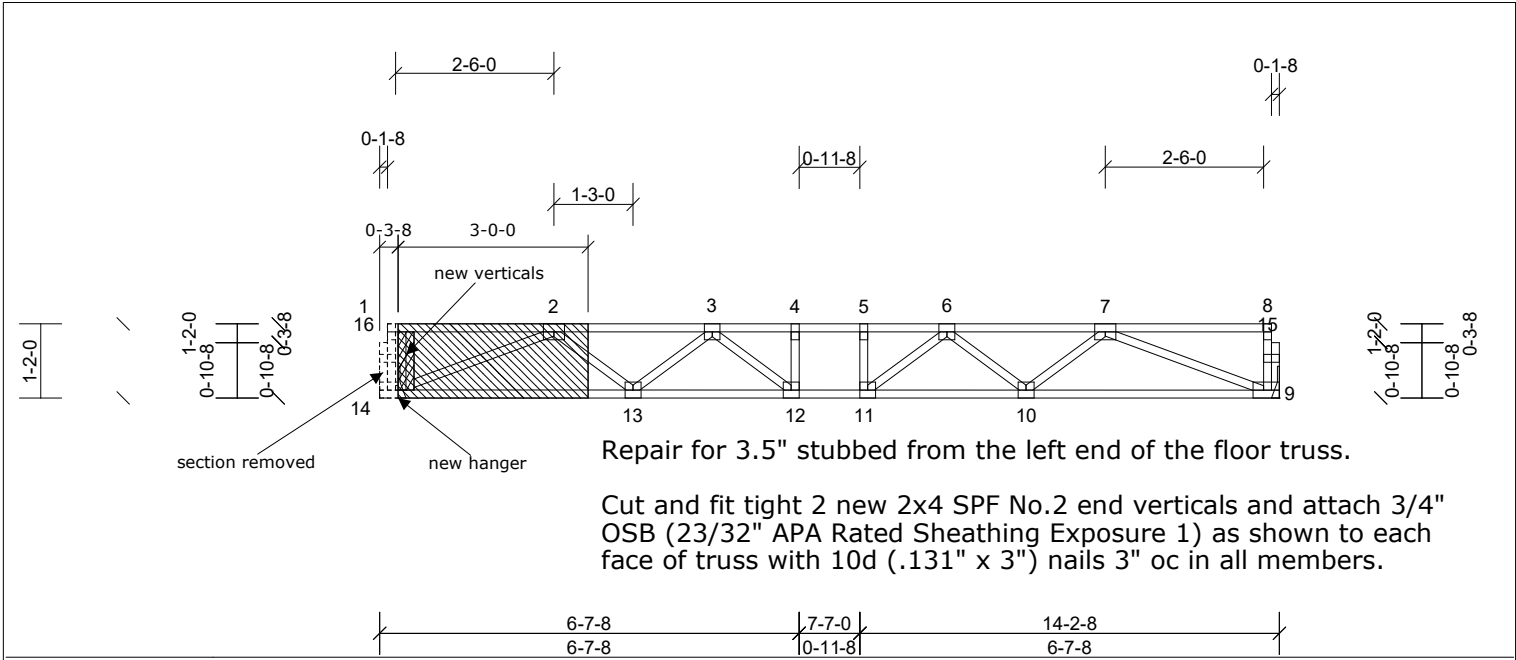


Plate Offsets (X, Y): [9:0-2:0,Edge], [14:0-2:0,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	Vert(LL)	-0.12	12	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	Vert(CT)	-0.16	11-12	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	Horz(CT)	0.04	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TP12014	Matrix-SH						Weight: 71 lb	FT = 20%F, 11%E

LUMBER		BRACING	
TOP CHORD	2x4 SP No.2(flat)	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2(flat)	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3(flat)		
OTHERS	2x4 SP No.3(flat)		

REACTIONS	(lb/size)	
		9=609/ Mechanical, (min. 0-1-8), 14=609/ Mechanical, (min. 0-1-8)

FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-1629/0, 3-4=-2040/0, 4-5=-2040/0, 5-6=-2040/0, 6-7=-1629/0
BOT CHORD	13-14=0/1295, 12-13=0/1927, 11-12=0/2040, 10-11=0/1927, 9-10=0/1295
WEBS	7-9=-1388/0, 2-14=-1388/0, 7-10=0/435, 2-13=0/435, 6-10=-388/0, 3-13=-388/0, 6-11=-69/315, 3-12=-69/315

- NOTES (4)**
- Unbalanced floor live loads have been considered for this design.
  - 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.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 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.



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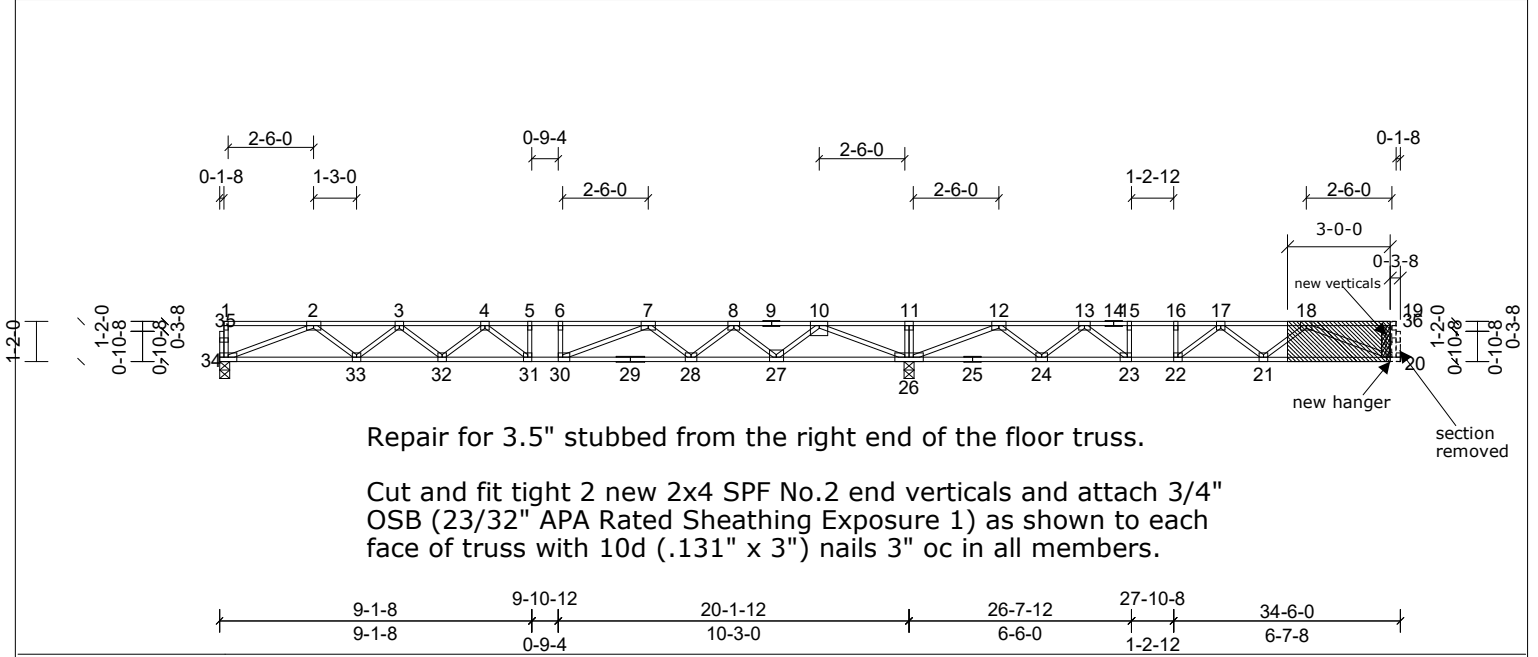
Job 27418064REP1	Truss F23	Truss Type Truss	Qty 5	Ply 1	PBS\GUILFORD TRAD B 2FLR Job Reference (optional)
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UFP Mid Atlantic LLC, 5631 S. NC 62, Burlington, NC, Chawn Duty

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Repair for 3.5" stubbed from the right end of the floor truss.

Cut and fit tight 2 new 2x4 SPF No.2 end verticals and attach 3/4" OSB (23/32" APA Rated Sheathing Exposure 1) as shown to each face of truss with 10d (.131" x 3") nails 3" oc in all members.

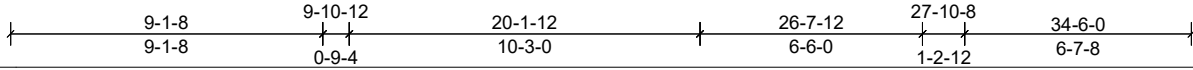


Plate Offsets (X, Y): [20.0-2.0,Edge], [23.0-1.8,Edge], [30.0-1.8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	Vert(LL)	-0.29	31	>817	480	MT18HS	244/190
TCDL	10.0	Lumber DOL	1.00	BC	Vert(CT)	-0.39	31-32	>616	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	Horz(CT)	0.06	26	n/a	n/a		
BCDL	5.0	Code	IRC2015/TP12014	Matrix-SH						Weight: 170 lb	FT = 20%F, 11%E

LUMBER		BRACING	
TOP CHORD	2x4 SP No.1(flat)	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2(flat)	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.3(flat)		
OTHERS	2x4 SP No.3(flat)		

REACTIONS	(lb/size)	
	20=397/ Mechanical, (min. 0-1-8), 26=1889/0-3-8, (min. 0-1-8), 34=716/0-3-8, (min. 0-1-8)	
Max Uplift	20=-12 (LC 3)	
Max Grav	20=517 (LC 4), 26=1889 (LC 1), 34=747 (LC 3)	

FORCES	(lb - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.)
TOP CHORD	2-3=-2142/0, 3-4=-2851/0, 4-5=-3046/0, 5-6=-3046/0, 6-7=-3046/0, 7-8=-1963/0, 8-9=-621/426, 9-10=-621/426, 10-11=0/2963, 11-12=0/2963, 12-13=-628/1350, 13-14=-1409/654, 14-15=-1409/654, 15-16=-1409/654, 16-17=-1409/654, 17-18=-1296/191
BOT CHORD	33-34=0/1635, 32-33=0/2616, 31-32=0/3060, 30-31=0/3046, 29-30=0/2484, 28-29=0/2484, 27-28=-168/1411, 26-27=-890/0, 25-26=-1667/163, 24-25=-1667/163, 23-24=-1032/1083, 22-23=-654/1409, 21-22=-351/1474, 20-21=-97/1065
WEBS	10-26=-2433/0, 2-34=-1754/0, 10-27=0/1107, 2-33=0/660, 8-27=-1081/0, 3-33=-616/0, 8-28=0/763, 3-32=0/306, 7-28=-725/0, 4-32=-272/1, 7-30=0/862, 4-31=-354/227, 12-26=-1922/0, 18-20=-1141/106, 12-24=0/786, 18-21=-1222/300, 13-24=-800/0, 13-23=0/826, 17-22=-533/0, 15-23=-359/0

- NOTES (8)**
- Unbalanced floor live loads have been considered for this design.
  - All plates are MT20 plates unless otherwise indicated.
  - All plates are 3x3 MT20 unless otherwise indicated.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 20.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TP1 1.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - CAUTION, Do not erect truss backwards.
  - 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.



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Job 72418064REP1	Truss F26	Truss Type Truss	Qty 2	Ply 1	PBS\GUILFORD TRAD B 2FLR Job Reference (optional)
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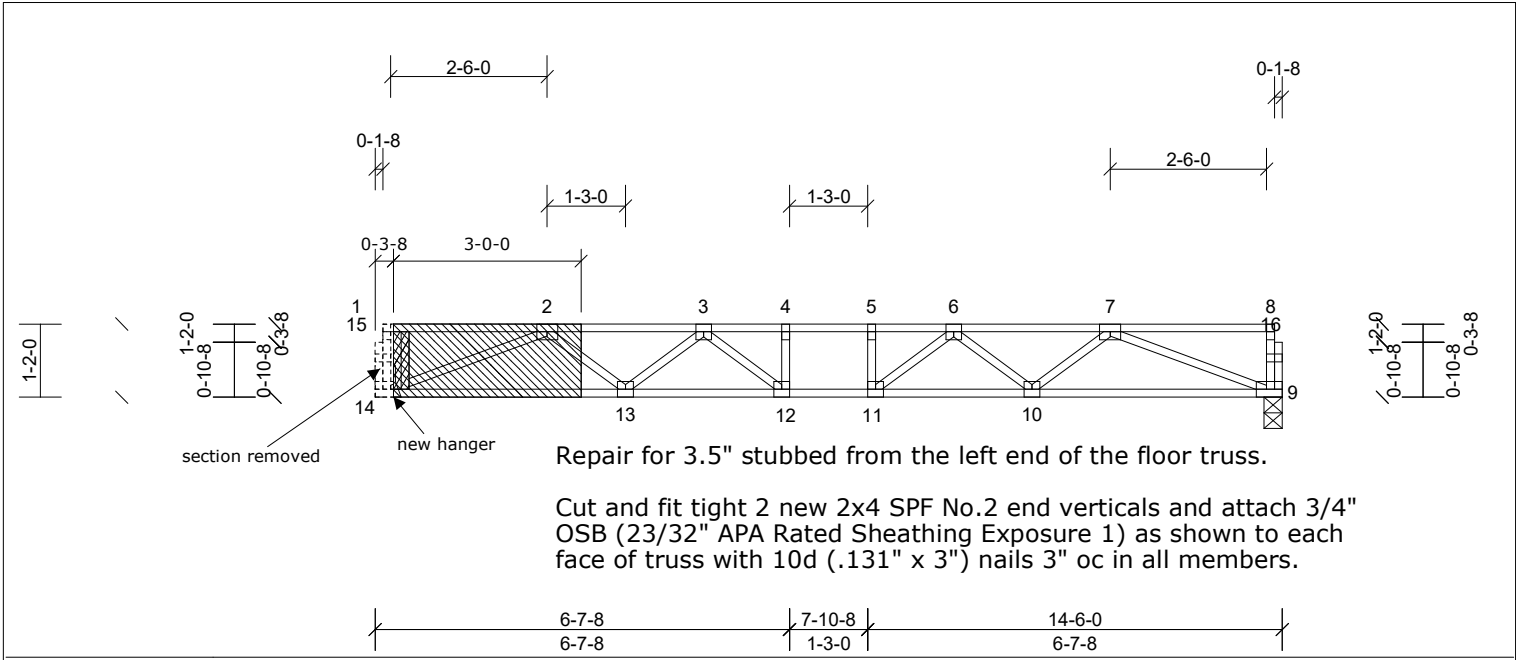


Plate Offsets (X, Y): [9:0-2:0,Edge], [14:0-2:0,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	Vert(LL)	-0.12	11-12	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	Vert(CT)	-0.17	11-12	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	Horz(CT)	0.04	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TP12014	Matrix-SH						Weight: 72 lb	FT = 20%F, 11%E

LUMBER	BRACING
TOP CHORD 2x4 SP No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	
OTHERS 2x4 SP No.3(flat)	

REACTIONS	(lb/size)
	9=622/0-3-8, (min. 0-1-8), 14=622/ Mechanical, (min. 0-1-8)

FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-1677/0, 3-4=-2122/0, 4-5=-2122/0, 5-6=-2122/0, 6-7=-1677/0
BOT CHORD	13-14=0/1327, 12-13=0/1989, 11-12=0/2122, 10-11=0/1989, 9-10=0/1327
WEBS	7-9=-1422/0, 2-14=-1422/0, 7-10=0/455, 2-13=0/455, 6-10=-407/0, 3-13=-407/0, 6-11=-55/352, 3-12=-55/352

- NOTES (4)**
- Unbalanced floor live loads have been considered for this design.
  - 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.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 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.



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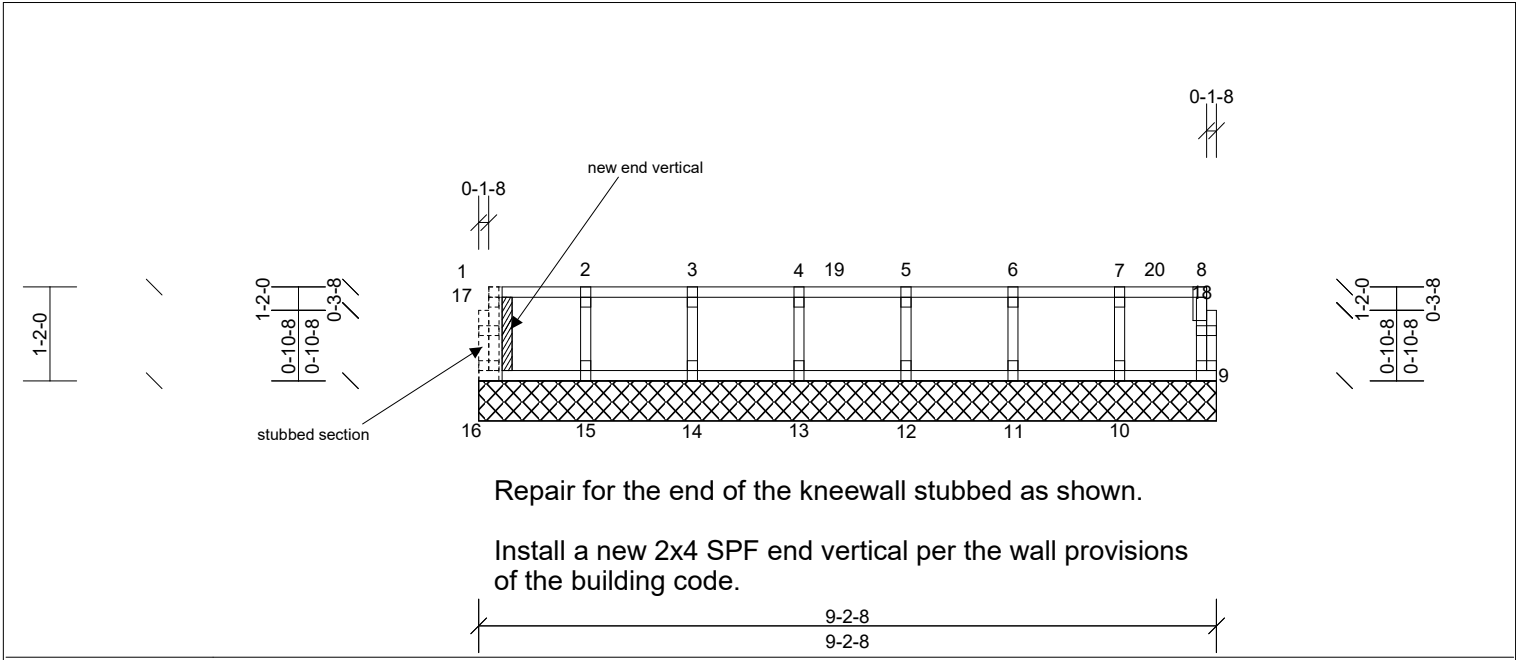
Job 72418064REP1	Truss FK21	Truss Type Truss	Qty 1	Ply 1	PBS\GUILFORD TRAD B 2FLR Job Reference (optional)
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UFP Mid Atlantic LLC, 5631 S. NC 62, Burlington, NC, Chawn Duty

Run: 8.73 S Jan 4 2024 Print: 8.730 S Jul 24 2024 MiTek Industries, Inc. Wed Aug 07 19:51:01

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Repair for the end of the kneewall stubbed as shown.

Install a new 2x4 SPF end vertical per the wall provisions of the building code.

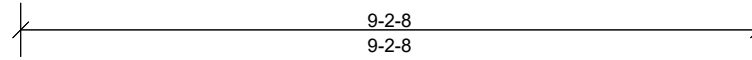


Plate Offsets (X, Y): [8-0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TP12014	Matrix-R						Weight: 40 lb	FT = 20%F, 11%E

LUMBER		BRACING	
TOP CHORD	2x4 SP No.2(flat)	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2(flat)	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3(flat)		
OTHERS	2x4 SP No.3(flat)		

**REACTIONS**

All bearings 9-2-8.

(lb) - Max Grav All reactions 250 (lb) or less at joint(s) 15 except 9=259 (LC 3), 10=454 (LC 4), 11=528 (LC 4), 12=308 (LC 4), 13=518 (LC 4), 14=561 (LC 3), 16=635 (LC 3)

**FORCES**

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

TOP CHORD 16-17=624/0, 1-17=622/0, 9-18=264/0, 8-18=261/0

WEBS 3-14=547/0, 4-13=507/0, 5-12=296/0, 6-11=518/0, 7-10=437/0

- NOTES (9)**
- Unbalanced floor live loads have been considered for this design.
  - All plates are 1.5x3 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 1-4-0 oc.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TP1 1.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 613 lb down at 0-2-4, 607 lb down at 2-5-4, 607 lb down at 4-5-4, and 607 lb down at 6-5-4, and 608 lb down at 8-5-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - 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 + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (lb/ft)

Vert: 9-16=8, 1-8=80

Concentrated Loads (lb)

Vert: 1=301, 3=295, 6=295, 19=295, 20=298



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