Lumber design values are in accordance with ANSI/TPI 1 section 6 3
These truss designs rely on lumber values established by others

RE: 3440001 - JOHNSON ADDITION

MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Site Information:
Customer Info DARRELL and LESLIE JOHNSON Project Name Addition Model Custom
Lot/Block N/A Subdivision N/A
Address 7449 SW CR 240, N/A
City Columbia State FL

Name Address and License # of Structural Engineer of Record, If there is one, for the building.
Name License #
Address
City State

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):
Design Code FBC2020/TPI2014 Design Program: MiTek 20/20 8.5
Wind Code: ASCE 7-16 Wind Speed: 130 mph
Roof Load. 37.0 psf Floor Load: N/A psf

This package includes 2 individual, Truss Design Drawings and 0 Additional Drawings
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31 003, section 5 of the Florida Board of Professional Engineers Rules

No	Seal#	Truss Name	Date
1	T29904383	T01	2/24/23
2	T29904384	T01G	2/24/23

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource-Lake City, FL.

Truss Design Engineer's Name ORegan, Philip
My license renewal date for the state of Florida is February 28, 2025.

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

PHILIP J. O'REGAN LICENSE No 58126 STATE OF FLORIDA PROFESSIONAL ENGINEER

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd, Chesterfield, MO 63017
Date:

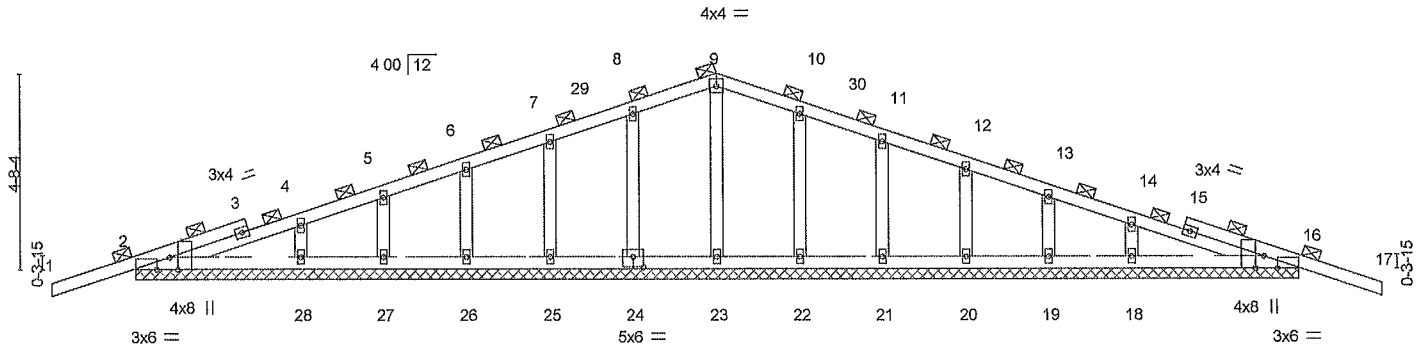
February 24,2023

Job	Truss	Truss Type	Qty	Ply	JOHNSON ADDITION
3440001	T01G	Common Supported Gable	1	1	T29904384
					Job Reference (optional)

Builders FirstSource (Lake City FL) Lake City FL - 32055, 8.530 s Aug 11 2022 MiTek Industries Inc. Thu Feb 23 15.41 40 2023 Page 1
ID:y4QiaC6?UfFp4_P2xWz6BjzxAPb-BIfLdVLPtvjDp4lyBKFzW1agqdYL51HQB5nBYGziCxf

-2-0-0 2-0-0 | 14-0-0 14-0-0 | 28-0-0 14-0-0 | 30-0-0 2-0-0

Scale = 1 53.2



28-0-0
28-0-0

Plate Offsets (X,Y)-- [2 0-3-8,Edge], [2 0-3-12 Edge], [16 0-3-8,Edge], [16 0-3-12,Edge], [24 0-3-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20 0	Plate Grip DOL	1 25	TC	0 24	Vert(LL)	-0 01	17	n/r	120	MT20	244/190
TCDL	7 0	Lumber DOL	1 25	BC	0 10	Vert(CT)	-0 02	17	n/r	120		
BCLL	0 0 *	Rep Stress Incr	YES	WB	0 04	Horz(CT)	0 00	16	n/a	n/a		
BCDL	10 0	Code FBC2020/TPI2014		Matrix-S							Weight 136 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No 2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No 3

BRACING-
TOP CHORD 2-0-0 oc purlins (6-0-0 max)
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing

REACTIONS All bearings 28-0-0
(lb) - Max Horz 2=75(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 24 25 26, 27 28 22, 21 20 19 18 except 2=-122(LC 8) 16=-130(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 23 24, 25 26, 27 28 22 21 20, 19 18 except 2=267(LC 23) 16=267(LC 24)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design
2) Wind ASCE 7-16 Vult=130mph (3-second gust) Vasd=101mph TCDL=4 2psf; BCDL=3 0psf; h=20ft; Cat. II, Exp B Encl GCpi=0 18 Gable Roof Common Truss MWFRS (envelope) gable end zone and C-C Corner(3E) -2-0-0 to 1-0-0 Exterior(2N) 1-0-0 to 14-0-0 Corner(3R) 14-0-0 to 17-0-0, Exterior(2N) 17-0-0 to 30-0-0 zone porch left and right exposed C-C for members and forces & MWFRS for reactions shown Lumber DOL=1 60 plate grip DOL=1 60
3) Truss designed for wind loads in the plane of the truss only For studs exposed to wind (normal to the face) see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1
4) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component
5) All plates are 2x4 MT20 unless otherwise indicated
6) Gable requires continuous bottom chord bearing
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads
9) * This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 24 25, 26 27 28, 22 21, 20 19 18 except (jt=lb) 2=122, 16=130
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

Philip J. O'Regan PE No.59126
MiTek Inc. DBA MiTek USA FB-Cert 6634
16023 Swingley Ridge Rd Chesterfield, MO 63017
Date:

February 24,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

AUGUST 1, 2016	T-BRACE / I-BRACE DETAIL WITH 2X BRACE ONLY	MII-T-BRACE 2

MiTek USA, Inc.

ENGINEERED BY TRENCO A MiTek Affiliate

Note: T-Bracing / I-Bracing to be used when continuous lateral bracing is impractical T-Brace / I-Brace must cover 90% of web length.

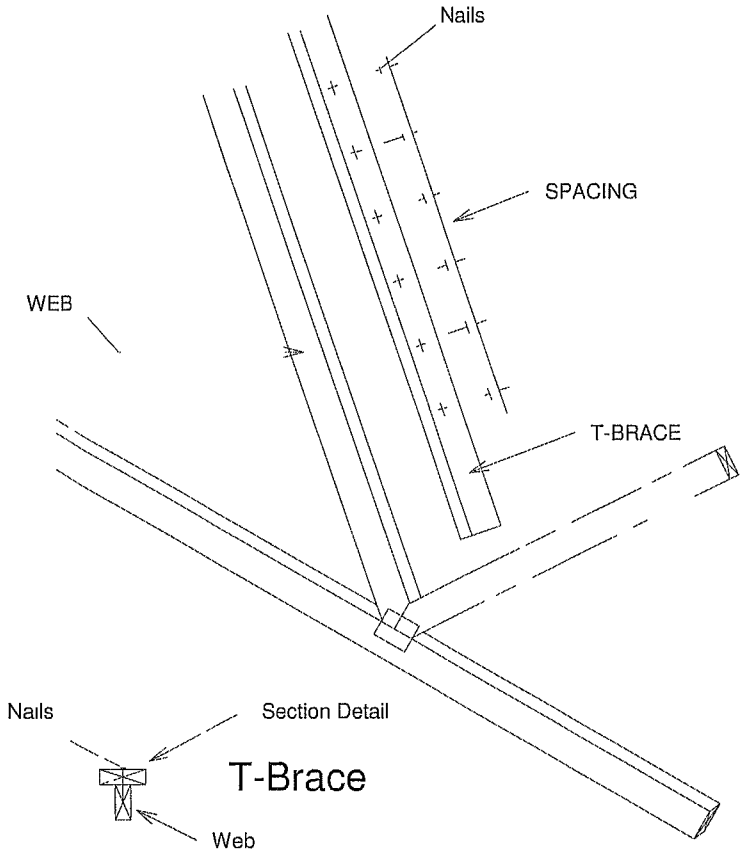
Note: This detail NOT to be used to convert T-Brace / I-Brace webs to continuous lateral braced webs.

Nailing Pattern		
T-Brace size	Nail Size	Nail Spacing
2x4 or 2x6 or 2x8	10d (0 131" X 3")	6" o c.
Note: Nail along entire length of T-Brace / I-Brace (On Two-Ply's Nail to Both Plies)		

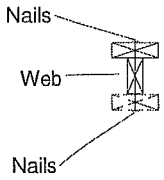
	Brace Size for One-Ply Truss	
	Specified Continuous Rows of Lateral Bracing	
Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

	Brace Size for Two-Ply Truss	
	Specified Continuous Rows of Lateral Bracing	
Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

T-Brace / I-Brace must be same species and grade (or better) as web member.



T-Brace



I-Brace

AUGUST 1, 2016	SCAB-BRACE DETAIL	MII-SCAB-BRACE

MiTek USA, Inc
ENGINEERED BY TRENCO
A MiTek Affiliate

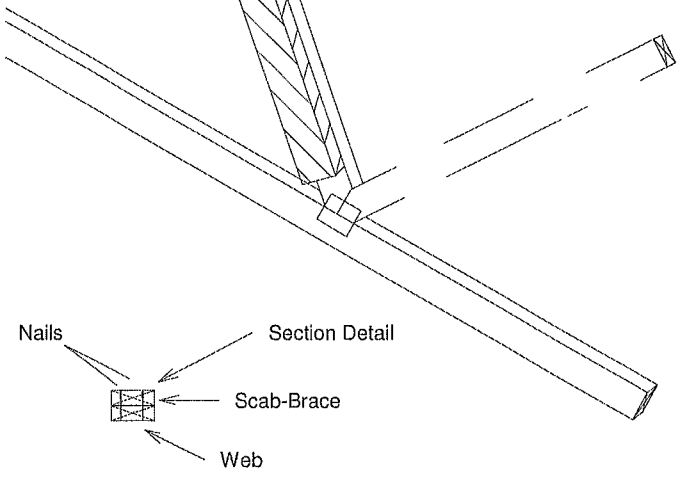
Note: Scab-Bracing to be used when continuous lateral bracing at midpoint (or T-Brace) is impractical.
Scab must cover full length of web +/- 6".

*** THIS DETAIL IS NOT APLICABLE WHEN BRACING IS *** REQUIRED AT 1/3 POINTS OR I-BRACE IS SPECIFIED

APPLY 2x___ SCAB TO ONE FACE OF WEB WITH
2 ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O C
SCAB MUST BE THE SAME GRADE, SIZE AND
SPECIES (OR BETTER) AS THE WEB

SCAB BRACE

MAXIMUM WEB AXIAL FORCE = 2500 lbs
MAXIMUM WEB LENGTH = 12'-0"
2x4 MINIMUM WEB SIZE
MINIMUM WEB GRADE OF #3



Scab-Brace must be same species grade (or better) as web member.

AUGUST 1, 2016	Standard Gable End Detail	MII-GE130-D-SP

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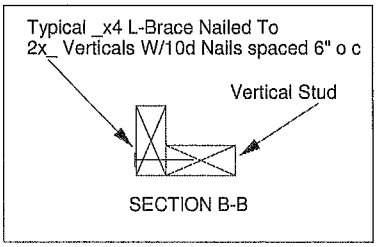
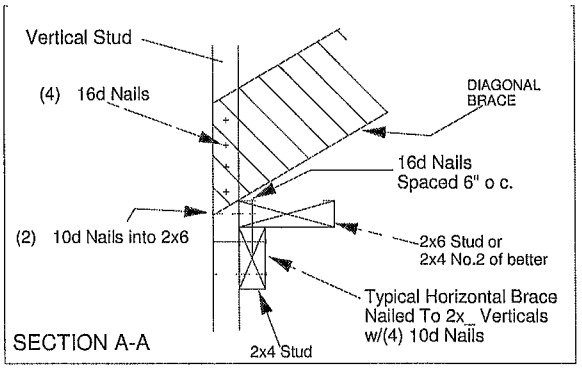
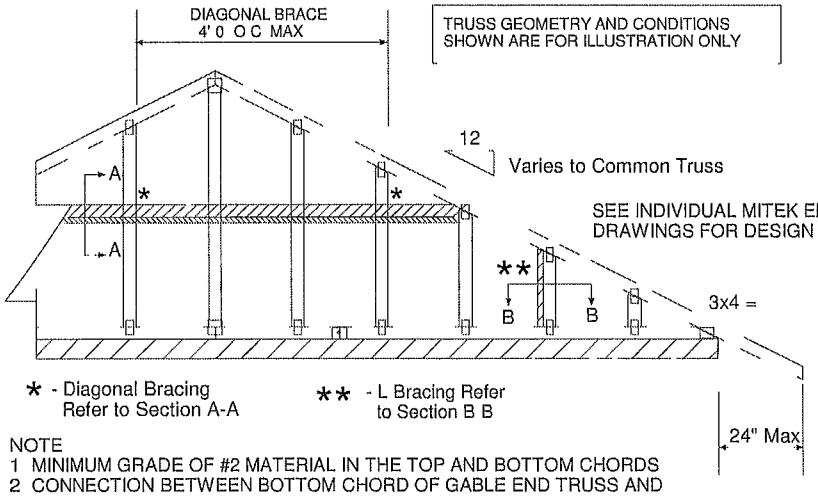
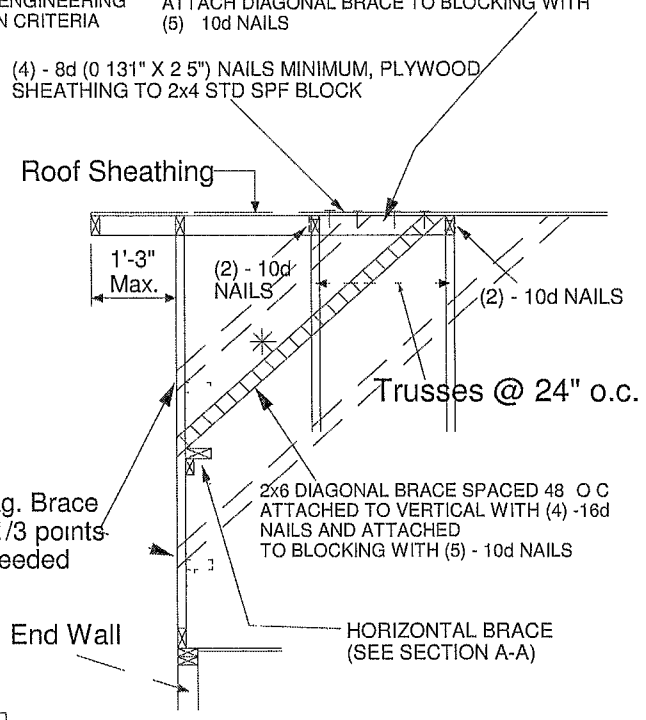






* - Diagonal Bracing Refer to Section A-A

** - L Bracing Refer to Section B B



NOTE
1 MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS
2 CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT
3 BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY CONSULT BLDG ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM
4 "L BRACES SPECIFIED ARE TO BE FULL LENGTH GRADES 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O C
5 DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4' 0" O C
6 CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O C HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4 (REFER TO SECTION A-A)
7 GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240
8 THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES
9 DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES
10 SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01 13 BY SPIB/ALSC
11 NAILS DESIGNATED 10d ARE (0 131" X 3") AND NAILS DESIGNATED 16d ARE (0 131" X 3 5")

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length				
2x4 SP No 3 / Stud	12" O C	3-9-13	4-1-1	5-9-6	7-1-3	11-5-7
2x4 SP No 3 / Stud	16" O C	3-5-4	3-6-8	5-0-2	6-10-8	10-3-13
2x4 SP No 3 / Stud	24" O C	2-9-11	2-10-11	4-1-1	5-7-6	8-5-1

✳ Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges Fasten T and I braces to narrow edge of diagonal brace with 10d nails 8" o c , with 3" minimum end distance Brace must cover 90% of diagonal length

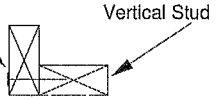
MAX MEAN ROOF HEIGHT = 30 FEET CATEGORY II BUILDING EXPOSURE D ASCE 7-98, ASCE 7-02, ASCE 7-05 130 MPH ASCE 7 10 160 MPH DURATION OF LOAD INCREASE 1 60	STUD DESIGN IS BASED ON COMPONENTS AND CLADDING. CONNECTION OF BRACING IS BASED ON MWFRS

JANUARY 6, 2017	Standard Gable End Detail	MII-GE140-001

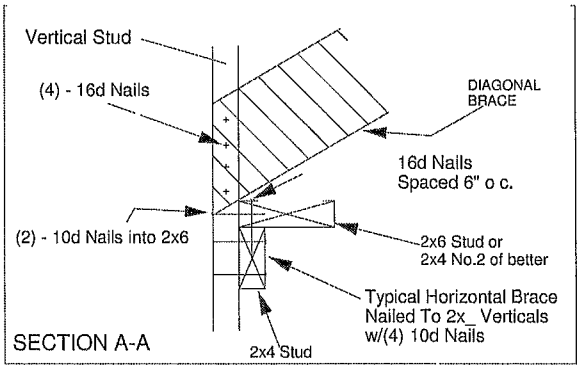
MiTek USA, Inc

ENGINEERED BY TRENCO A MiTek Affiliate

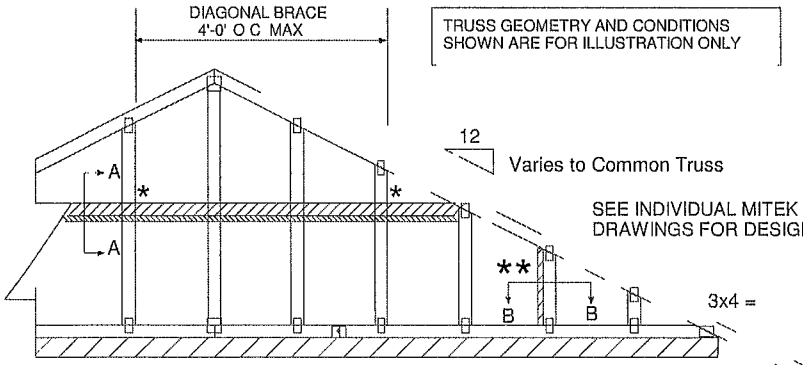
Typical _x4 L-Brace Nailed To 2x_ Verticals W/10d Nails spaced 6" o c.



SECTION B-B



SECTION A-A



TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY

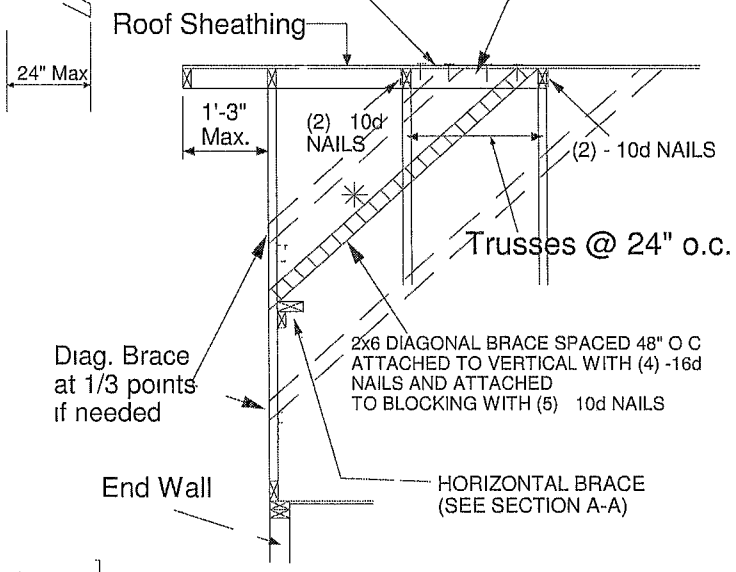
SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA

* - Diagonal Bracing Refer to Section A-A

** L Bracing Refer to Section B-B

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) 10d NAILS

(4) - 8d (0 131" X 2 5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD DF/SPF BLOCK



NOTE
1 MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS
2 CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT
3 BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY CONSULT BLDG ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM
4 "L" BRACES SPECIFIED ARE TO BE FULL LENGTH GRADES 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O C
5 DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O C
6 CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O C HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A A)
7 GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240
8 THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES
9 DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES
10 NAILS DESIGNATED 10d ARE (0 131" X 3") AND NAILS DESIGNATED 16d ARE (0 131" X 3 5")

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length				
2x4 DF/SPF Std/Stud	12" O C	3-10-1	3-11-7	5-7-2	7-8-2	11-6-4
2x4 DF/SPF Std/Stud	16" O C	3-3-14	3-5-1	4-10-2	6-7-13	9-11-11
2x4 DF/SPF Std/Stud	24" O C	2-8-9	2-9-8	3-11-7	5-5-2	8-1-12

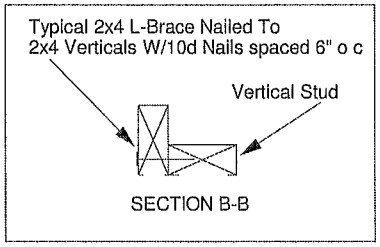
✳ Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges Fasten T and I braces to narrow edge of web with 10d nails 8" o c , with 3" minimum end distance Brace must cover 90% of diagonal length

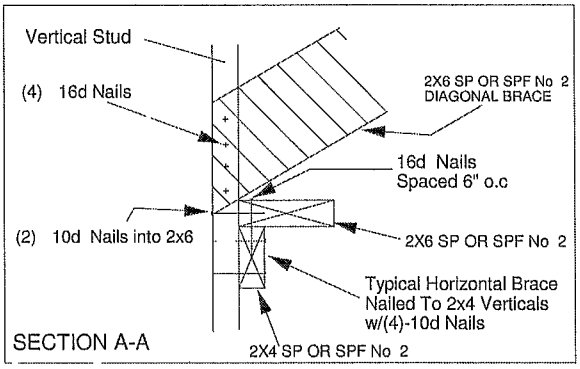
MAXIMUM WIND SPEED = 140 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE B or C
ASCE 7-98, ASCE 7-02, ASCE 7-05
DURATION OF LOAD INCREASE 1 60

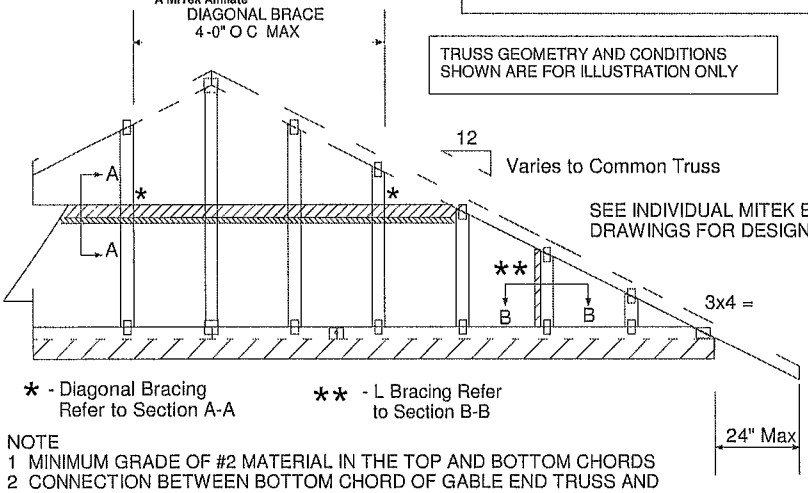
STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
CONNECTION OF BRACING IS BASED ON MWFRS

AUGUST 1, 2016	Standard Gable End Detail	MII-GE180-D-SP

MiTek USA, Inc
ENGINEERED BY TRENCO
A MiTek Affiliate

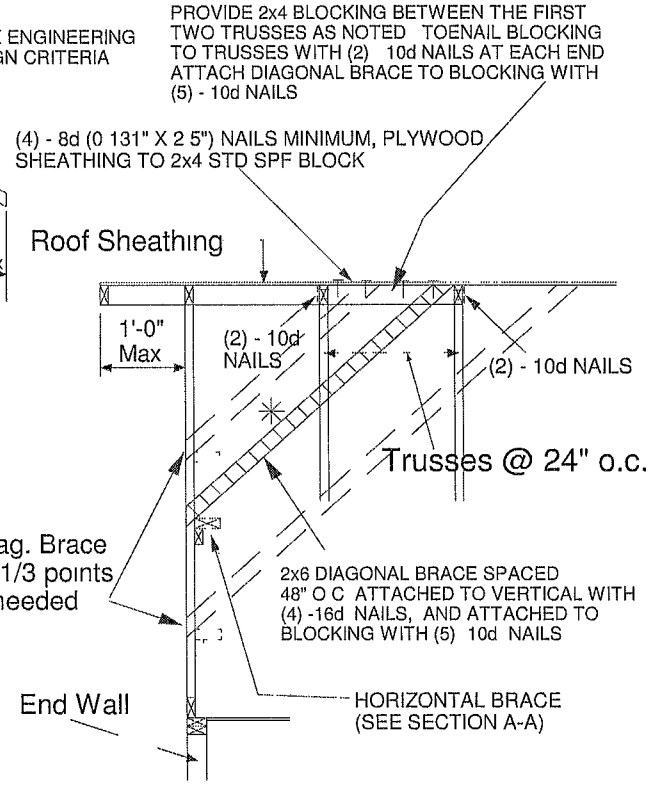






* - Diagonal Bracing
Refer to Section A-A

** - L Bracing Refer
to Section B-B



NOTE
1 MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS
2 CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT
3 BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY CONSULT BLDG ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM
4 "L" BRACES SPECIFIED ARE TO BE FULL LENGTH, SPF or SP No 3 OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O C
5 DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0 O C
6 CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 AND A 2x4 AS SHOWN WITH 16d NAILS SPACED 6" O C HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST GABLE STUD ATTACH TO VERTICAL GABLE STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7 GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240
8 THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES
9 DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES
10 SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC
11 NAILS DESIGNATED 10d ARE (0 131 X 3") AND NAILS DESIGNATED 16d ARE (0 131" X 3 5')

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length			
2x4 SP No 3 / Stud	12" O C	3-7-12	5-4-11	6-2 1	10-11-3
2x4 SP No 3 / Stud	16" O C	3-2 8	4 8 1	6 2 1	9-7 7
2x4 SP No 3 / Stud	24" O C	2 7 7	3-9-12	5 2 13	7-10-4
2x4 SP No 2	12" O C	3-10-0	5-4-11	6-2-1	11-6-1
2x4 SP No 2	16" O C	3-5 13	4-8-1	6 2-1	10-5-7
2x4 SP No 2	24" O C	3 0 8	3-9-12	6-1 1	9-1-9

✳ Diagonal braces over 6'-3" require a 2x4 T Brace attached to one edge Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges Fasten T and I braces to narrow edge of diagonal brace with 10d nails 6in o c , with 3in minimum end distance Brace must cover 90% of diagonal length T or I braces must be 2x4 SPF No 2 or SP No 2

MAX MEAN ROOF HEIGHT = 30 FEET
EXPOSURE D
ASCE 7 10 180 MPH
DURATION OF LOAD INCREASE 1 60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
CONNECTION OF BRACING IS BASED ON MWFRS

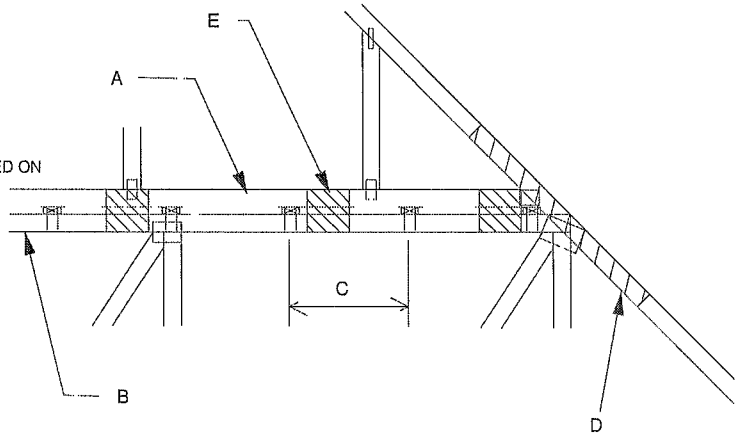
AUGUST 1, 2016	STANDARD PIGGYBACK TRUSS CONNECTION DETAIL	MII-PIGGY-ALT 7-10

MiTek USA, Inc
ENGINEERED BY TRENCO
A MiTek Affiliate

MAXIMUM WIND SPEED = REFER TO NOTES D AND OR E
MAX MEAN ROOF HEIGHT = 30 FEET
MAX TRUSS SPACING = 24 " O C
CATEGORY II BUILDING
EXPOSURE B or C
ASCE 7-10
DURATION OF LOAD INCREASE 1 60

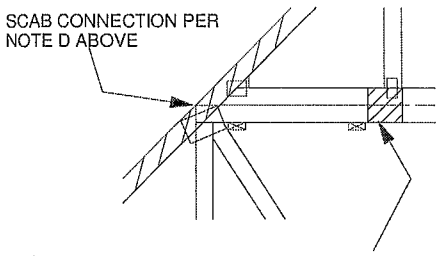
DETAIL IS NOT APPLICABLE FOR TRUSSES TRANSFERING DRAG LOADS (SHEAR TRUSSES) ADDITIONAL CONSIDERATIONS BY BUILDING ENGINEER/DESIGNER ARE REQUIRED

A PIGGBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING SHALL BE CONNECTED TO EACH PURLIN WITH (2) 0(0.131 X 3.5') TOE-NAILED
B BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING
C PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24 O C UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING CONNECT TO BASE TRUSS WITH (2) (0 131 X 3.5') NAILS EACH
D 2 X __ X 4'-0" SCAB, SIZE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, MIN GRADE #2 ATTACHED TO ONE FACE, CENTERED ON INTERSECTION, WITH (2) ROWS OF (0 131" X 3") NAILS @ 4 O.C SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT IN BOTH DIRECTIONS AND
1 WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR
2 WIND SPEED OF 116 MPH TO 160 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.
E FOR WIND SPEED IN THE RANGE 126 MPH 160 MPH ADD 9' x 9' x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 48' O C. OR LESS. ATTACH WITH 3 6d (0 113 X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL 12 NAILS)

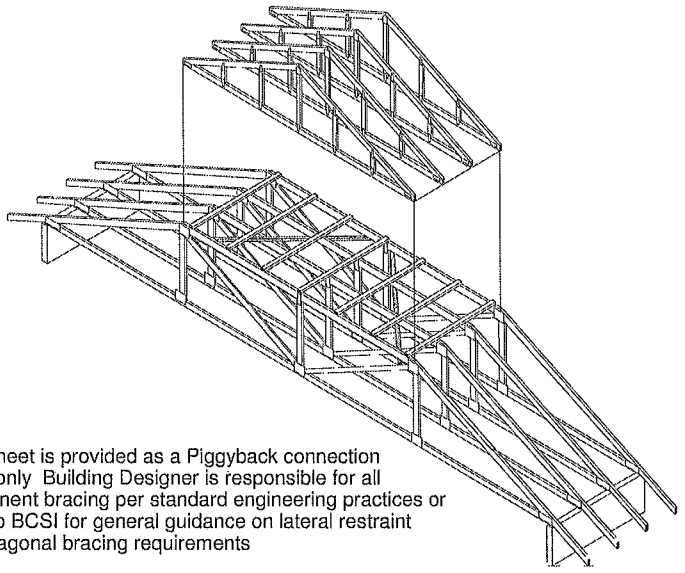


WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS

REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH PLYWOOD GUSSETS AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING

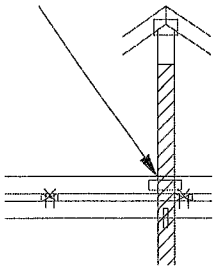


7" x 7" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 24" O C ATTACH WITH 3 6d (0 113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



This sheet is provided as a Piggyback connection detail only Building Designer is responsible for all permanent bracing per standard engineering practices or refer to BCSI for general guidance on lateral restraint and diagonal bracing requirements

VERTICAL WEB TO EXTEND THROUGH BOTTOM CHORD OF PIGGYBACK



FOR LARGE CONCENTRATED LOADS APPLIED TO CAP TRUSS REQUIRING A VERTICAL WEB

1) VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE GRADE, AND MUST LINE UP AS SHOWN IN DETAIL.
2) ATTACH 2 x ___ x 4'-0" SCAB TO EACH FACE OF TRUSS ASSEMBLY WITH 2 ROWS OF 10d (0 131 X 3") NAILS SPACED 4" O C FROM EACH FACE (SIZE AND GRADE TO MATCH VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS) (MINIMUM 2X4)
3) THIS CONNECTION IS ONLY VALID FOR A MAXIMUM CONCENTRATED LOAD OF 4000 LBS (@1 15) REVIEW BY A QUALIFIED ENGINEER IS REQUIRED FOR LOADS GREATER THAN 4000 LBS
4) FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS, NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS
5) CONCENTRATED LOAD MUST BE APPLIED TO BOTH THE PIGGYBACK AND THE BASE TRUSS DESIGN

MiTek USA, Inc
ENGINEERED BY TRENCO
A MiTek Affiliate

NOTES
1 TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 45 DEGREES WITH THE MEMBER AND MUST HAVE FULL WOOD SUPPORT (NAIL MUST BE DRIVEN THROUGH AND EXIT AT THE BACK CORNER OF THE MEMBER END AS SHOWN
2 THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD
3 ALLOWABLE VALUE SHALL BE THE LESSER VALUE OF THE TWO SPECIES FOR MEMBERS OF DIFFERENT SPECIES

THIS DETAIL APPLICABLE TO THE THREE END DETAILS SHOWN BELOW

VIEWS SHOWN ARE FOR ILLUSTRATION PURPOSES ONLY

TOE-NAIL SINGLE SHEAR VALUES PER NDS 2001 (lb/nail)

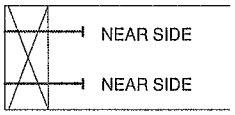
	DIAM	SP	DF	HF	SPF	SPF-S
3.5" LONG	131	88 0	80 6	69 9	68 4	59 7
	135	93 5	85 6	74 2	72 6	63 4
	162	108 8	99 6	86 4	84.5	73 8
3.25" LONG	128	74 2	67 9	58 9	57 6	50 3
	131	75 9	69 5	60 3	59 0	51 1
	148	81 4	74 5	64 6	63 2	52 5

VALUES SHOWN ARE CAPACITY PER TOE-NAIL
APPLICABLE DURATION OF LOAD INCREASES MAY BE APPLIED

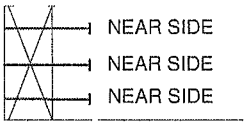
EXAMPLE
(3) 16d (0 162" X 3 5") NAILS WITH SPF SPECIES BOTTOM CHORD

For load duration increase of 1 15
3 (nails) X 84 5 (lb/nail) X 1 15 (DOL) = 291 5 lb Maximum Capacity

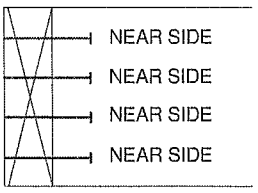
SIDE VIEW
(2x3)
2 NAILS

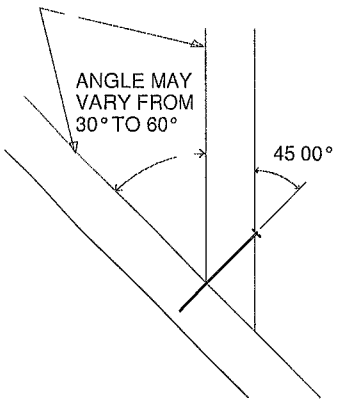


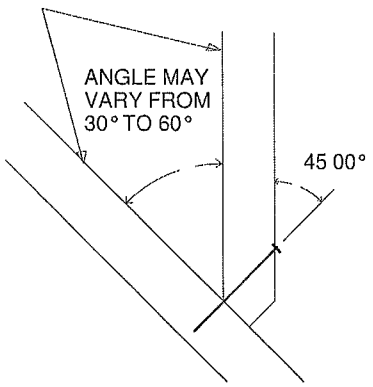
SIDE VIEW
(2x4)
3 NAILS

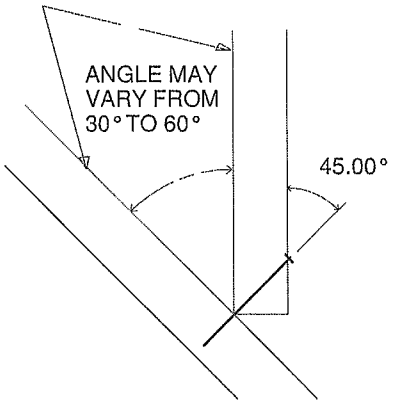


SIDE VIEW
(2x6)
4 NAILS







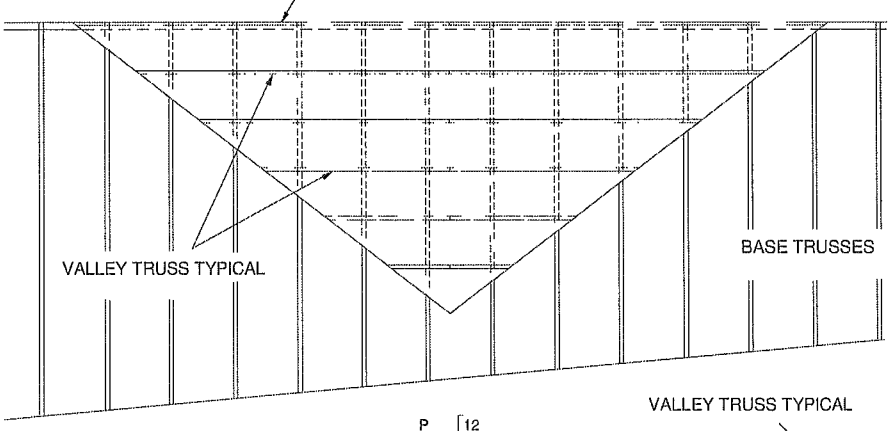


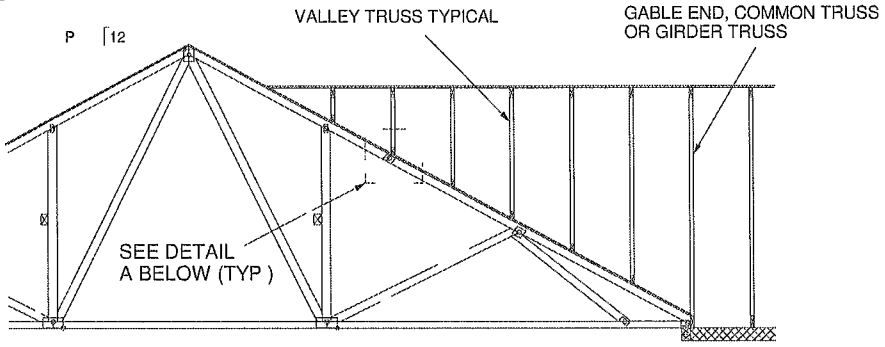
AUGUST 1, 2016	TRUSSED VALLEY SET DETAIL	MII-VALLEY HIGH WIND2

MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate

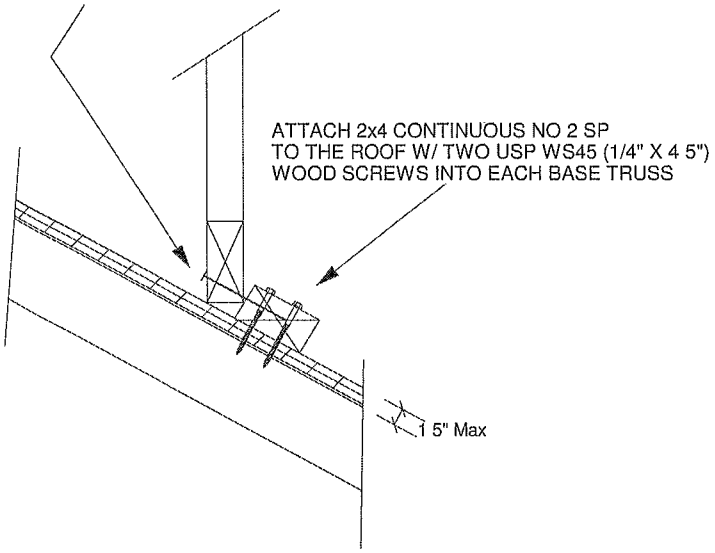
GENERAL SPECIFICATIONS

1 NAIL SIZE 10d (0 131" X 3")
2 WOOD SCREW = 4 5" WS45 USP OR EQUILIVANT
3 INSTALL SHEATHING TO TOP CHORD OF BASE TRUSSES
4 INSTALL VALLEY TRUSSES (24" O C MAXIMUM) AND SECURE TO BASE TRUSSES AS PER DETAIL A
5 BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS
6 NAILING DONE PER NDS-01
7 VALLEY STUD SPACING NOT TO EXCEED 48" O C





SECURE VALLEY TRUSS
W/ ONE ROW OF 10d
NAILS 6" O C



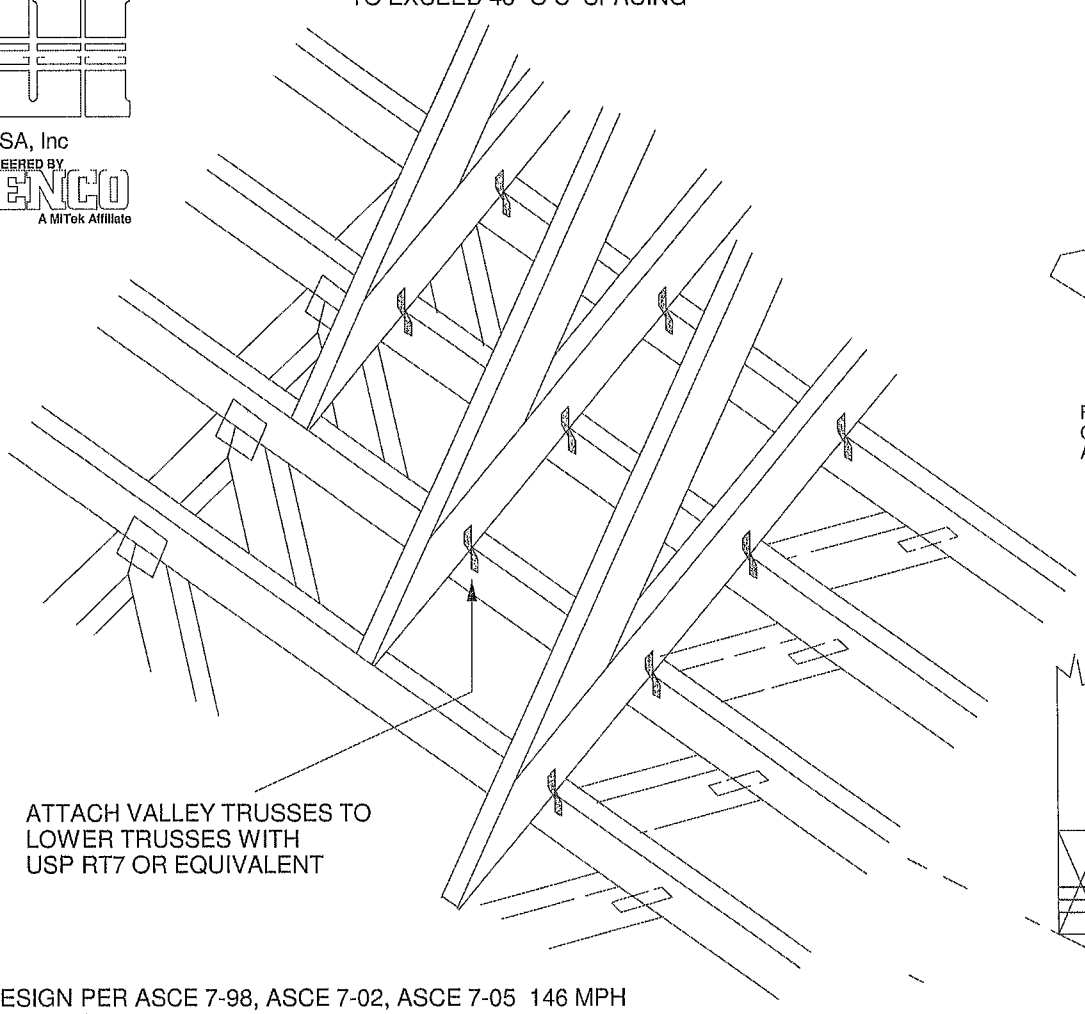
WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7 05 146 MPH
WIND DESIGN PER ASCE 7 10 160 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12
CATEGORY II BUILDING
EXPOSURE C
WIND DURATION OF LOAD INCREASE 1 60
MAX TOP CHORD TOTAL LOAD = 50 PSF
MAX SPACING = 24" O C (BASE AND VALLEY)
MINIMUM REDUCED DEAD LOAD OF 6 PSF ON THE TRUSSES

AUGUST 1, 2016	TRUSSED VALLEY SET DETAIL (HIGH WIND VELOCITY)	MII-VALLEY

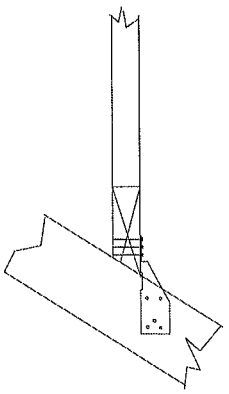
MiTek USA, Inc

ENGINEERED BY TRENCO
A MiTek Affiliate

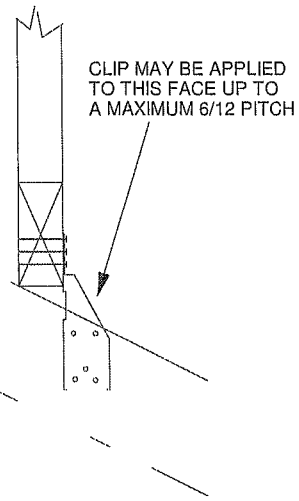
NOTE: VALLEY STUD SPACING NOT TO EXCEED 48" O C SPACING



ATTACH VALLEY TRUSSES TO LOWER TRUSSES WITH USP RT7 OR EQUIVALENT



FOR BEVELED BOTTOM CHORD, CLIP MAY BE APPLIED TO EITHER FACE



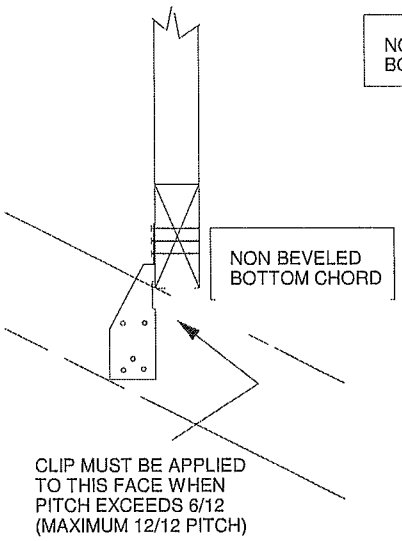
CLIP MAY BE APPLIED TO THIS FACE UP TO A MAXIMUM 6/12 PITCH

NON BEVELED BOTTOM CHORD

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH
WIND DESIGN PER ASCE 7-10 160 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE B or C
WIND DURATION OF LOAD INCREASE : 1 6
MAX TOP CHORD TOTAL LOAD = 50 PSF
MAX SPACING = 24" O C (BASE AND VALLEY)

SUPPORTING TRUSSES DIRECTLY UNDER VALLEY TRUSSES MUST BE DESIGNED WITH A MAXIMUM UNBRACED LENGTH OF 2'-10" ON AFFECTED TOP CHORDS.

NOTES:
- SHEATHING APPLIED AFTER INSTALLATION OF VALLEY TRUSSES
- THIS DETAIL IS NOT APPLICABLE FOR SPF-S SPECIES LUMBER.



NON BEVELED BOTTOM CHORD

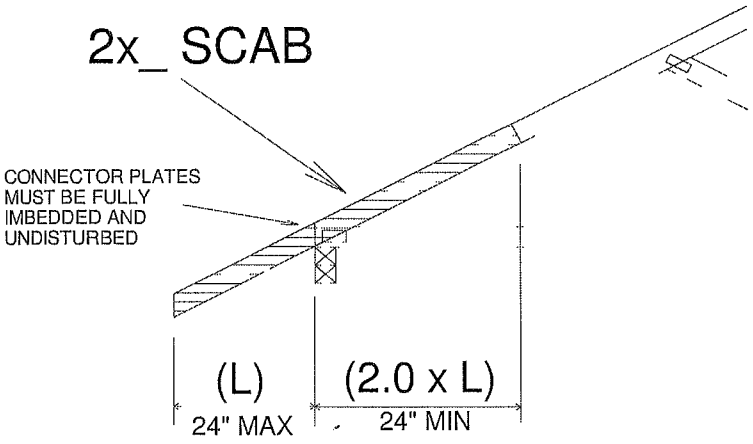
CLIP MUST BE APPLIED TO THIS FACE WHEN PITCH EXCEEDS 6/12 (MAXIMUM 12/12 PITCH)

OCTOBER 5, 2016	REPLACE BROKEN OVERHANG	MII-REP13B

MiTek USA, Inc
ENGINEERED BY TRENCO
A MiTek Affiliate

TRUSS CRITERIA
LOADING 40-10-0-10
DURATION FACTOR 1 15
SPACING 24" O C
TOP CHORD 2x4 OR 2x6
PITCH 4/12 - 12/12
HEEL HEIGHT STANDARD HEEL UP TO 12" ENERGY HEEL
END BEARING CONDITION

NOTES
1 ATTACH 2x_ SCAB (MINIMUM NO 2 GRADE SPF, HF, SP, DF) TO ONE FACE OF TRUSS WITH TWO ROWS OF 10d (0 131" X 3") SPACED 6" O C
2 THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD
3. WHEN NAILING THE SCABS, THE USE OF A BACKUP WEIGHT IS RECOMMENDED TO AVOID LOOSENING OF THE CONNECTOR PLATES AT THE JOINTS OR SPLICES

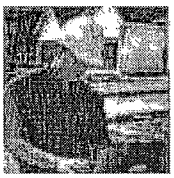


IMPORTANT
This detail to be used only with trusses (spans less than 40') spaced 24" o c maximum and having pitches between 4/12 and 12/12 and total top chord loads not exceeding 50 psf
Trusses not fitting these criteria should be examined individually

REFER TO INDIVIDUAL TRUSS DESIGN
FOR PLATE SIZES AND LUMBER GRADES

Boise Cascade
Engineered Wood Products

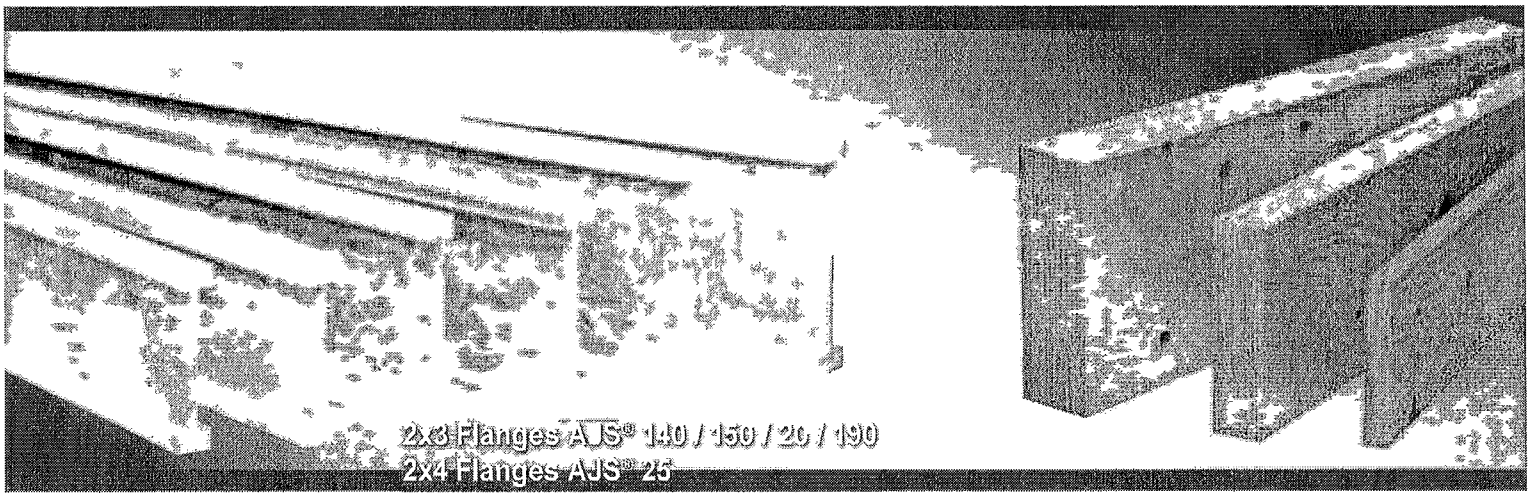
The information in this document pertains to use in the UNITED STATES ONLY, Allowable Stress Design Refer to the ALLJOIST Specifier Guide Canada for use in Canada, Limit States Design

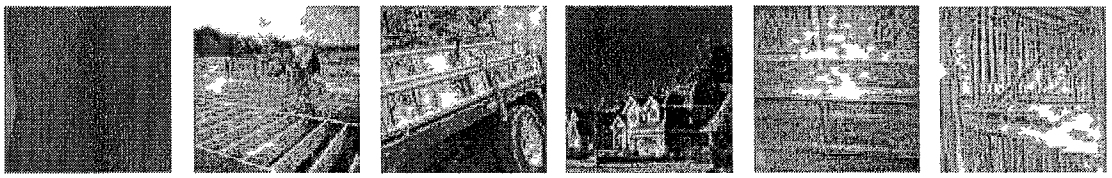


ALLJoist®

INSTALLATION GUIDE

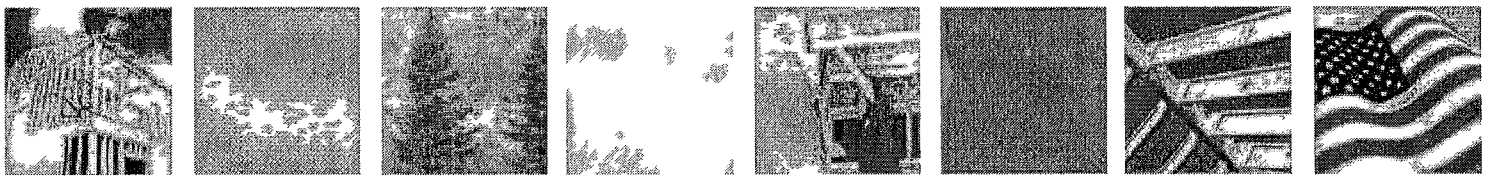
Includes AJS® 140 / 150 / 20 / 190 / 25 and VERSA-LAM® BEAMS





US Version

product manufactured in
St Jacques, New Brunswick
CANADA



Lifetime Guaranteed Quality and Performance

Boise Cascade warrants its BCI® Joist, VERSA-LAM®, and ALLJOIST® products to comply with our specifications, to be free from defects in material and workmanship, and to meet or exceed our performance specifications for the normal and expected life of the structure when correctly stored, installed, and used according to our Installation Guide.

For information about Boise Cascade's engineered wood products, including sales terms and conditions, warranties and disclaimers,
visit our website at www.BCewp.com
To locate your nearest Boise Cascade Engineered Wood Products distributor, call **1-800-232-0788**

AIG US 08/29/2013

ALLJOIST® Residential Floor Span Tables

About Floor Performance

Homeowner's expectations and opinions vary greatly due to the subjective nature of rating a new floor Communication with the ultimate end user to determine their expectation is critical ***Vibration*** is usually the cause of most complaints Installing lateral bridging may help, however, squeaks may occur if not installed properly Spacing the joists closer together does little to affect the perception of the floor's performance The most common methods used to increase the performance and reduce vibration of wood floor systems is to ***increase the joist depth, limit joist deflections, glue and screw a thicker, tongue-and-groove subfloor, install the joists vertically plumb with level-bearing supports, and install a direct-attached ceiling to the bottom flanges of the joists***

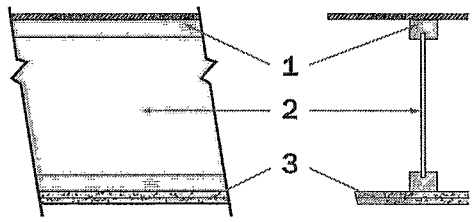
The floor span tables listed below offer three very different performance options, based on performance requirements of the homeowner

Joist Depth	ALLJOIST® Series	★★★THREE STAR ★★★ Live Load deflection limited to L/480· The common industry and design community standard for residential floor joists, **33% stiffer than L/360 code minimum.** However, floor performance may still be an issue in certain applications, especially with 9½" and 11⅞" deep joists without a direct-attached ceiling				★★★★FOUR STAR ★★★★ Live Load deflection limited to L/960· A floor that is 100% stiffer than the three star floor A premium floor that 100% stiffer than the 3-star floor for the discriminating homeowner				CAUTION ★MINIMUM STIFFNESS ALLOWED BY CODE ★ CAUTION **Live Load deflection limited to L/360·** Floors that **meet the minimum building code** L/360 criteria are structurally sound to carry the specified loads, however, there is a much higher risk of floor performance issues This table should only be used for applications where floor performance is not a concern			
		12" o c	16" o.c.	19.2" o.c.	24" o c.	12" o.c.	16" o c.	19.2" o.c.	24" o.c.	12" o c.	16" o c.	19 2" o c.	24" o c.
9½"	140	17'–9"	16'–3"	15'–4"	13'–11"	13'–11"	12'–8"	11'–11"	11'–1"	19'–8"	17'–0"	15'–6"	13'–11"
	150	18'–1"	16'–7"	15'–8"	14'–7"	14'–2"	12'–11"	12'–2"	11'–3"	20'–0"	18'–3"	16'–8"	14'–11"
	20	19'–1"	17'–5"	16'–5"	15'–4"	14'–10"	13'–6"	12'–9"	11'–10"	21'–1"	19'–3"	18'–2"	16'–4"
	190	19'–4"	17'–8"	16'–8"	15'–6"	15'–1"	13'–9"	12'–11"	12'–0"	21'–4"	19'–7"	18'–6"	17'–3"
	25	21'–0"	19'–1"	18'–0"	16'–9"	16'–4"	14'–10"	14'–0"	12'–11"	23'–2"	21'–1"	19'–3"	17'–2"
11⅞"	140	21'–2"	19'–4"	17'–8"	15'–10"	16'–7"	15'–1"	14'–3"	13'–3"	22'–5"	19'–5"	17'–8"	15'–10"
	150	21'–7"	19'–8"	18'–7"	17'–0"	16'–10"	15'–4"	14'–6"	13'–5"	23'–10"	20'–10"	19'–0"	17'–0"
	20	22'–8"	20'–9"	19'–7"	18'–3"	17'–9"	16'–2"	15'–2"	14'–1"	25'–1"	22'–10"	20'–10"	18'–8"
	190	23'–0"	21'–0"	19'–10"	18'–6"	18'–0"	16'–4"	15'–5"	14'–4"	25'–5"	23'–3"	21'–11"	19'–0"
	25	24'–11"	22'–9"	21'–5"	18'–3"	19'–6"	17'–8"	16'–8"	15'–5"	27'–7"	24'–0"	21'–11"	18'–3"
14"	140	24'–0"	21'–4"	19'–5"	17'–4"	18'–10"	17'–2"	16'–2"	15'–0"	24'–7"	21'–4"	19'–5"	17'–4"
	150	24'–6"	22'–4"	20'–11"	18'–9"	19'–2"	17'–6"	16'–5"	15'–3"	26'–6"	22'–11"	20'–11"	18'–9"
	20	25'–9"	23'–6"	22'–2"	19'–1"	20'–2"	18'–4"	17'–3"	16'–0"	28'–5"	25'–1"	22'–11"	19'–1"
	190	26'–1"	23'–10"	22'–6"	19'–1"	20'–5"	18'–7"	17'–6"	16'–3"	28'–10"	26'–4"	23'–11"	19'–1"
	25	28'–4"	25'–10"	22'–11"	18'–4"	22'–1"	20'–1"	18'–11"	17'–6"	30'–5"	26'–4"	22'–11"	18'–4"
16"	140	26'–6"	22'–11"	20'–11"	18'–9"	20'–10"	19'–0"	17'–11"	16'–8"	26'–6"	22'–11"	20'–11"	18'–9"
	150	27'–1"	24'–7"	22'–5"	19'–3"	21'–3"	19'–4"	18'–3"	16'–11"	28'–5"	24'–7"	22'–5"	19'–3"
	20	28'–6"	26'–0"	24'–2"	19'–3"	22'–4"	20'–4"	19'–1"	17'–9"	31'–3"	27'–0"	24'–2"	19'–3"
	190	28'–11"	26'–5"	24'–2"	19'–3"	22'–8"	20'–7"	19'–5"	18'–0"	31'–11"	28'–11"	24'–2"	19'–3"
	25	31'–4"	27'–10"	23'–2"	18'–6"	24'–6"	22'–3"	20'–11"	18'–6"	32'–9"	27'–10"	23'–2"	18'–6"

- Table values based on residential floor loads of 40 psf live load and 10 psf dead load (12 psf dead load for AJS® 25 joists)
- Table values assume that $^{23}/_{32}$ min plywood/OSB rated sheathing is glued and nailed to joists
- Table values represent the most restrictive of simple or multiple span applications
- Table values are the maximum allowable clear distance between supports Analyze multiple span joists with BC CALC® sizing software if the length of any span is less than half the length of an adjacent span
- Table values assume minimum bearing lengths without web stiffeners for joist depths of 16 inches and less
- Floor tile will increase dead load and may require specific deflection limits, contact Boise Cascade EWP Engineering for further information
- This table was designed to apply to a broad range of applications It may be possible to exceed the limitations of this table by analyzing a specific application with the BC CALC® sizing software

Shaded values do not satisfy the requirements of the North Carolina State Building Code Refer to the THREE STAR table when spans exceed 20 feet

One-Hour Floor/Ceiling Assembly



See the US version of the Boise Cascade Fire Design & Installation Guide for specific assembly information and other fire resistive options or contact your local Boise Cascade representative

FIRE ASSEMBLY COMPONENTS

1 Min $^{23}/_{32}$-inch T&G Wood Structural Panels A construction adhesive must be applied to the top of the joists prior to placing sheathing The sheets shall be installed with their long edge perpendicular to the joists with end joists centered over the top flange of joists and staggered one joist spacing with adjacent sheets
2 AJS® Joists at 24" o c or less
3 Two layers ½" Type C or two layers ⅝" Type X gypsum board

SOUND ASSEMBLY COMPONENTS

When constructed with resilient channels

- Add carpet & pad to fire assembly
- Add 3½" glass fiber insulation to fire assembly
- Add an additional layer of minimum ⅝" sheathing and 9½" glass fiber insulation to fire assembly

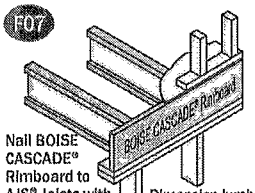
STC=54	IIC=68	or
STC=55	IIC=46	or
STC=61	IIC=50	

Floor Framing Details

Additional floor framing details available with BC FRAMER® software

END BEARING DETAILS

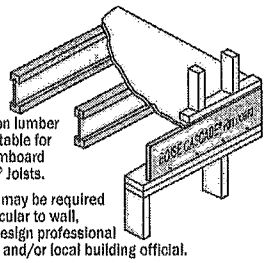
F07



Nail BOISE CASCADE® Rimboard to AJS® Joists with 8d nail into each flange.

Dimension lumber is not suitable for use as rim board with AJS® Joists.

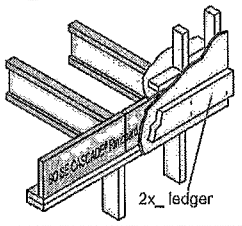
F07A



Dimension lumber is not suitable for use as rimboard with AJS® Joists.

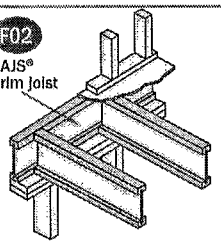
Blocking may be required perpendicular to wall, consult design professional of record and/or local building official.

F07B



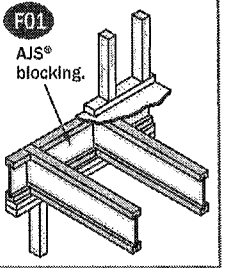
2x_ ledger

F02

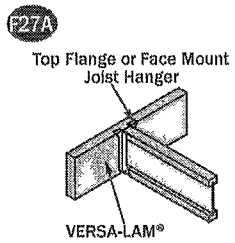


Use of AJS® rimjoist requires 2x6 wall for minimum joist bearing.

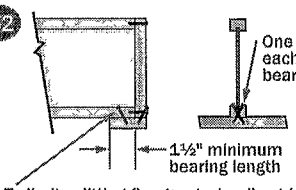
F01



F27A

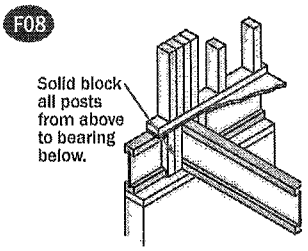


F52

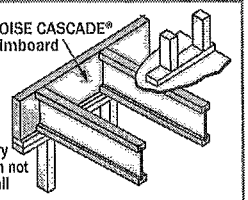


To limit splitting flange, start nails at least 1½" from end Nails may need to be driven at an angle to limit splitting of bearing plate.

F08



F03

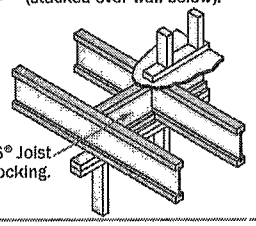


Note: AJS® floor joist must be designed to carry wall above when not stacked over wall below.

Blocking required underneath braced wall panels and shear walls, consult design professional of record.

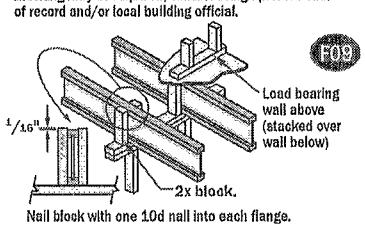
INTERMEDIATE BEARING DETAILS

F06



Blocking may be required, consult design professional of record and/or local building official.

F09

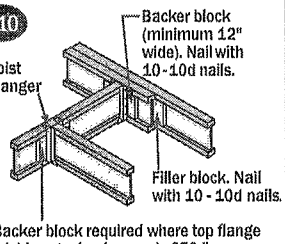


Nail block with one 10d nail into each flange.

Size	Double Squash Block Vertical Load [lb/ft] Joist Spacing [in]			
	12	16	19.2	24
2x4	4463	3347	2789	2231
2x6	7013	5259	4383	3506

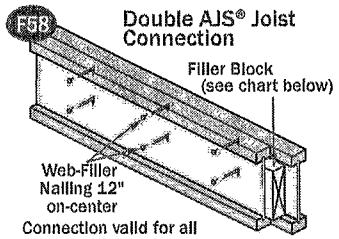
1. Squash blocks are to be in full contact with upper floor and lower wall plate.
2. Capacities shown are for a double squash blocks at each joist, SPF or better

F10



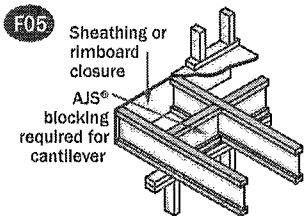
Backer block required where top flange joist hanger load exceeds 250 lbs. Install tight to top flange.

F58



Connection valid for all applications. Contact Boise Cascade EWP Engineering for specific conditions.

F05

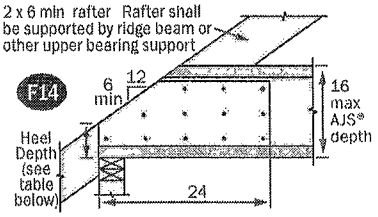


For load bearing cantilever, see pages 9 and 10 Uplift on backspan shall be considered in all cantilever designs

AJS® Joist Slope Cut Reinforcement

Detail below restores original allowable shear/reaction value to cut end of AJS® joist AJS® Joist shall not be used as a collar or rafter tension tie.

F14



2x blocking required at bearing (not shown for clarity) 23/32" min plywood/OSB rated sheathing as reinforcement. Install reinforcement with face grain horizontal install on both sides of the joist, tight to bottom flange. ¼" gap between reinforcement and bottom of top flange Apply construction adhesive to contact surfaces and fasten with 3 rows of min. 10d box nails at 6" o.c. Alternate nailing from each side and clinch

End Wall Bearing	Minimum Heel Depth Roof Pitch					
	6/12	7/12	8/12	9/12	10/12	12/12
2 x 4	4⅜"	4⁵⁄₁₆"	4¼"	4¼	4¼"	4¼
2 x 6	3⅜	3⅜	2⁵⁄₁₆"	2¾"	2⁵⁄₁₆"	2¼

LATERAL SUPPORT

- AJS® Joists must be laterally supported at the ends with hangers, AJS® rim joists, rim boards, AJS® blocking panels or x-bracing. AJS® blocking panels or x-bracing are required at cantilever supports.
- Blocking may be required at intermediate bearings for floor diaphragm per IRC in high seismic areas, consult local building official.

MINIMUM BEARING LENGTH FOR AJS® JOISTS

- 1½ inches is required at end supports 3½ inches is required at cantilever and intermediate supports
- Longer bearing lengths allow higher reaction values. Refer to the building code evaluation report or the BC CALC® software.

NAILING REQUIREMENTS

- AJS® rim joist, rim board or closure panel to AJS® Joist:
  - Rims or closure panel 1¼ inches thick and less 2-8d nails, one each in the top and bottom flange
  - AJS® 140/150/20/190 rim joist: 2-16d box nails, one each in the top and bottom flange.
  - AJS® 25 rim joist, Toe-nail top flange to rim joist with 2-10d box nails, one each side of flange.
- AJS® rim joist, rim board or AJS® blocking panel to support:
  - 8d nails at 6 inches on center.
  - When used for shear transfer, follow the building designer's specification
- AJS® Joist to support:
  - 2-8d nails, one on each side of the web, placed 1½ inches minimum from the end of the AJS® Joist to limit splitting.
- Sheathing to AJS® joist, rim joist, blocking:
  - Prescriptive residential floor sheathing nailing requires 8d common nails @ 6" o.c. on edges and @ 12" o.c. in the field IRC Table R602.3(1). Closer nail spacing may be required per design professional of record.
  - 14 gauge staples may be substituted for 8d nails if the staples penetrate at least 1 inch into the joist.
  - Wood screws may be acceptable, contact local building official and/or Boise Cascade EWP Engineering for further information.

BACKER AND FILLER BLOCK DIMENSIONS

AJS® Series	Backer Block Thickness	Filler Block Thickness
140 150 20 190	1⅛" or two ½" wood panels	2x_ + ⅝" wood panel
25	2x_ lumber	Double 2x_ lumber

- Cut backer and filler blocks to a maximum depth equal to the web depth minus ¼" to avoid a forced fit.
- For deeper AJS® Joists, stack 2x lumber or use multiple pieces of ¾" wood panels

WEB STIFFENER REQUIREMENTS

- See *Web Stiffener Requirements* on page 4

PROTECT AJS® JOISTS FROM THE WEATHER

- AJS® Joists is intended only for applications that provide permanent protection from the weather. Bundles of product should be covered and stored off of the ground on stickers

AJS® RIM JOISTS AND BLOCKING

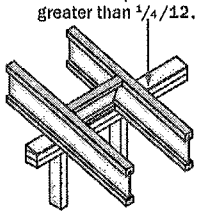
Joist Depth	Vertical Load Transfer Capacity (plf)
9½"	1875
11⅞"	1680
14"	1500
16"	1340

1) Web stiffeners required at each end of blocking panel. Distance between stiffeners must be less than 24".

Roof Framing Details

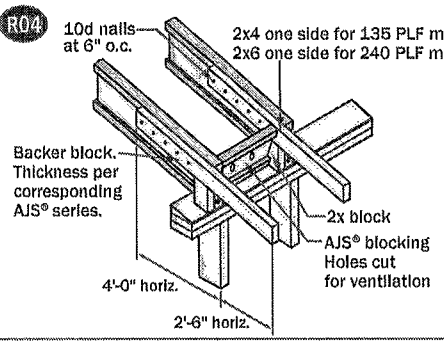
Additional roof framing details available with BC FRAMER® software

R01

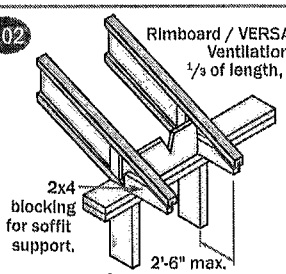


Simpson VPA or USP TMP connectors or equal can be used in lieu of beveled plate for slopes from 3/12 to 12/12.

R04

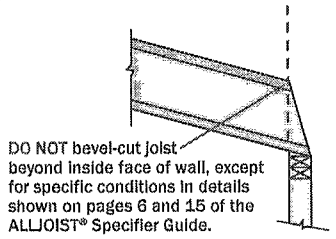


R02

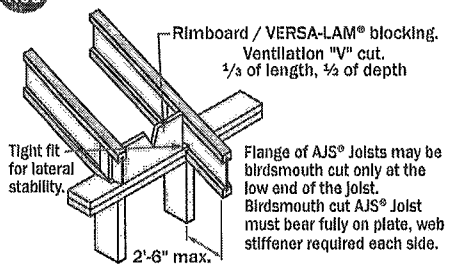


Flange of AJS® joists may be birdsmouth cut only at the low end of the joist. Birdsmouth cut AJS® joist must bear fully on plate, web stiffener required each side. Bottom flange shall be fully supported

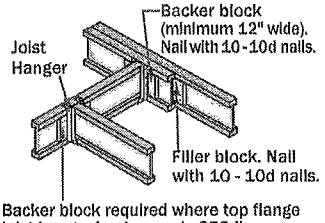
DNO5



R03

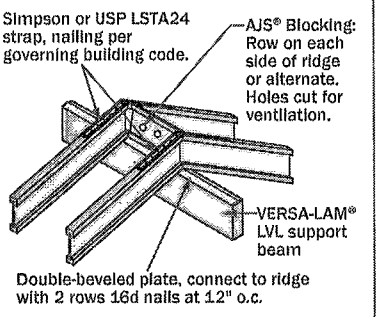


R07

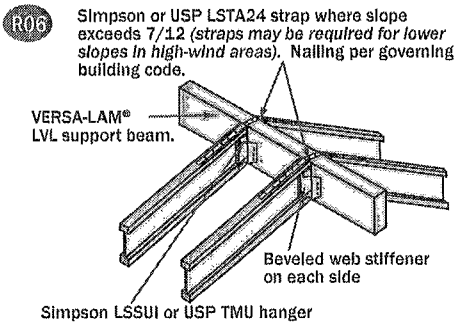


Backer block required where top flange joist hanger load exceeds 250 lbs. Install tight to top flange.

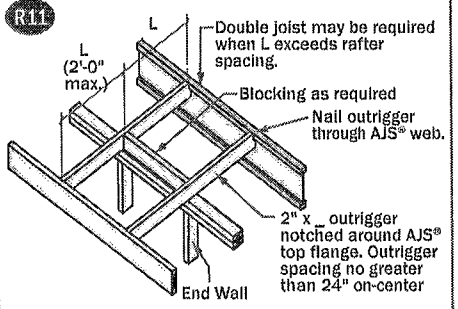
R05



R06



R11



LATERAL SUPPORT

- AJS® joists must be laterally supported at the ends with hangers, AJS® rim joists, rim boards, AJS® blocking panels or x-bracing AJS® blocking panels or x-bracing are required at cantilever supports
- Blocking may be required at intermediate bearings for floor diaphragm per IRC in high seismic areas, consult local building official.

MINIMUM BEARING LENGTH FOR AJS® JOISTS

- 1½ inches is required at end supports 3½ inches is required at cantilever and intermediate supports.
- Longer bearing lengths allow higher reaction values Refer to the building code evaluation report or the BC CALC® software

NAILING REQUIREMENTS

- AJS® rim joist, rim board or closure panel to AJS® joist:
  - Rims or closure panel 1¼ inches thick and less. 2-8d nails, one each in the top and bottom flange
  - AJS® 140/150/20/190 rim joist 2-16d box nails, one each in the top and bottom flange.
  - AJS® 25 rim joist. Toe-nail top flange to rim joist with 2-10d box nails, one each side of flange.
- AJS® rim joist, rim board or AJS® blocking panel to support:
  - 8d nails at 6 inches on center.
  - When used for shear transfer, follow the building designer's specification
- AJS® joist to support:
  - 2-8d nails, one on each side of the web, placed 1½ inches minimum from the end of the AJS® joist to limit splitting.
- Sheathing to AJS® joist, rim joist, blocking:
  - Prescriptive residential roof sheathing nailing requires 8d common nails @ 6" o.c. on edges and @ 12" o.c. in the field IRC Table R602 3(1) Closer nail spacing may be required per design professional of record
  - 14 gauge staples may be substituted for 8d nails if the staples penetrate at least 1 inch into the joist
  - Wood screws may be acceptable, contact local building official and/or Boise Cascade EWP Engineering for further information

BACKER AND FILLER BLOCK DIMENSIONS

AJS® Series	Backer Block Thickness	Filler Block Thickness
140 150 20 190	1⅛" or two ½" wood panels	2x _ + ⅝" wood panel
25	2 x _ lumber	Double 2 x _ lumber

- Cut backer and filler blocks to a maximum depth equal to the web depth minus ¼" to avoid a forced fit
- For deeper AJS® joists, stack 2x lumber or use multiple pieces of ¾" wood panels

WEB STIFFENER REQUIREMENTS

- See *Web Stiffener Requirements* on page 4.

PROTECT AJS® JOISTS FROM THE WEATHER

- AJS® Joists are intended only for applications that provide permanent protection from the weather. Bundles of AJS® Joists should be covered and stored off of the ground on stickers

MAXIMUM SLOPE

- Unless otherwise noted, all roof details are valid for slopes of 12 in 12 or less.

VENTILATION

- The 1½ inch, pre-stamped knock-out holes spaced at 12 inches on center along the AJS® Joist may all be knocked out and used for cross ventilation Deeper joists than what is structurally needed may be advantageous in ventilation design Consult local building official and/or ventilation specialist for specific ventilation requirements

BIRDSMOUTH CUTS

- AJS® Joists may be birdsmouth cut only at the low end support AJS® Joists with birdsmouth cuts may cantilever up to 2'-6" past the low end support. The bottom flange must sit fully on the support and may not overhang the inside face of the support High end supports and intermediate supports may not be birdsmouth cut.

Reinforced Load Bearing Cantilever Tables

AJS® Joists

AJS® 140

Joist Depth [in]	Joist Series	Roof Truss Span [ft]	Roof Total Load [psf] 35 Joist Spacing [in] 16	19.2	24	45 16	19.2	24	55 16	19.2	24
14	9½"	24	0	0	1	0	0	X	0	X	X
		26	0	0	1	0	1	X	1	X	X
		28	0	0	X	0	1	X	1	X	X
		30	0	0	X	0	X	X	X	X	X
		32	0	0	X	1	X	X	X	X	X
		34	0	1	X	1	X	X	X	X	X
		36	0	1	X	1	X	X	X	X	X
		38	0	X	X	X	X	X	X	X	X
		40	0	X	X	X	X	X	X	X	X
	11⅞"	24	0	0	0	0	0	0	0	0	X
		26	0	0	0	0	0	1	0	0	X
		28	0	0	0	0	0	1	0	1	X
		30	0	0	0	0	0	X	0	1	X
		32	0	0	0	0	0	X	0	1	X
		34	0	0	1	0	0	X	0	X	X
		36	0	0	1	0	1	X	1	X	X
		38	0	0	1	0	1	X	1	X	X
		40	0	0	X	0	1	X	1	X	X
	14"	24	0	0	0	0	0	0	0	0	WS
		26	0	0	0	0	0	WS	0	0	WS
		28	0	0	0	0	0	WS	0	0	1
		30	0	0	0	0	0	WS	0	0	1
		32	0	0	0	0	0	WS	0	WS	X
		34	0	0	0	0	1	0	WS	X	X
		36	0	0	WS	0	0	1	0	1	X
		38	0	0	WS	0	0	1	0	1	X
		40	0	0	WS	0	WS	X	0	1	X
	16"	24	0	0	0	0	0	0	0	0	WS
		26	0	0	0	0	0	WS	0	0	WS
		28	0	0	0	0	0	WS	0	0	WS
		30	0	0	0	0	0	WS	0	0	WS
		32	0	0	0	0	0	WS	0	WS	1
		34	0	0	WS	0	0	WS	0	WS	1
		36	0	0	WS	0	0	WS	0	WS	1
		38	0	0	WS	0	WS	WS	0	WS	X
		40	0	0	WS	0	WS	1	0	WS	X

AJS® 150

Joist Depth [in]	Joist Series	Roof Truss Span [ft]	Roof Total Load [psf] 35 Joist Spacing [in] 16	19.2	24	45 16	19.2	24	55 16	19.2	24
14	9½"	24	0	0	1	0	0	2	0	1	X
		26	0	0	1	0	1	X	1	2	X
		28	0	0	1	0	1	X	1	X	X
		30	0	0	2	0	1	X	1	X	X
		32	0	0	2	1	2	X	2	X	X
		34	0	1	X	1	2	X	2	X	X
		36	0	1	X	1	X	X	X	X	X
		38	0	1	X	1	X	X	X	X	X
		40	0	1	X	2	X	X	X	X	X
	11⅞"	24	0	0	0	0	0	0	0	0	1
		26	0	0	0	0	0	1	0	0	1
		28	0	0	0	0	0	1	0	1	X
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		36	0	0	1	0	1	X	1	2	X
		38	0	0	1	0	1	X	1	2	X
		40	0	0	1	0	1	X	1	X	X
	14"	24	0	0	0	0	0	0	0	0	WS
		26	0	0	0	0	0	WS	0	0	WS
		28	0	0	0	0	0	WS	0	0	1
		30	0	0	0	0	0	WS	0	WS	1
		32	0	0	0	0	0	WS	0	WS	1
		34	0	0	WS	0	0	1	0	WS	X
		36	0	0	WS	0	0	1	0	1	X
		38	0	0	WS	0	WS	1	0	1	X
		40	0	0	WS	0	WS	1	WS	1	X
	16"	24	0	0	0	0	0	0	0	0	WS
		26	0	0	0	0	0	WS	0	0	WS
		28	0	0	0	0	0	WS	0	WS	WS
		30	0	0	0	0	0	WS	0	WS	WS
		32	0	0	0	0	0	WS	0	WS	1
		34	0	0	WS	0	0	WS	0	WS	1
		36	0	0	WS	0	0	WS	0	WS	1
		38	0	0	WS	0	WS	WS	0	WS	1
		40	0	0	WS	0	WS	1	WS	WS	X

AJS® 20

Joist Depth [in]	Joist Series	Roof Truss Span [ft]	Roof Total Load [psf] 35 Joist Spacing [in] 16	19.2	24	45 16	19.2	24	55 16	19.2	24
14	9½"	24	0	0	1	0	0	2	0	2	X
		26	0	0	1	0	1	X	1	2	X
		28	0	0	1	0	1	X	1	X	X
		30	0	0	2	0	2	X	1	X	X
		32	0	0	2	1	2	X	2	X	X
		34	0	1	2	1	2	X	2	X	X
		36	0	1	X	1	X	X	2	X	X
		38	0	1	X	1	X	X	X	X	X
		40	0	2	X	2	X	X	X	X	X
	11⅞"	24	0	0	0	0	0	WS	0	0	1
		26	0	0	0	0	0	1	0	0	2
		28	0	0	0	0	0	1	0	1	X
		30	0	0	0	0	0	1	0	1	X
		32	0	0	WS	0	0	2	0	1	X
		34	0	0	1	0	0	X	0	1	X
		36	0	0	1	0	1	X	1	2	X
		38	0	0	1	0	1	X	1	X	X
		40	0	0	1	0	1	X	1	X	X
	14"	24	0	0	0	0	0	0	0	0	WS
		26	0	0	0	0	0	WS	0	0	WS
		28	0	0	0	0	0	WS	0	WS	1
		30	0	0	0	0	0	WS	0	WS	1
		32	0	0	0	0	0	WS	0	WS	1
		34	0	0	WS	0	0	1	0	WS	X
		36	0	0	WS	0	0	1	0	1	X
		38	0	0	WS	0	WS	1	0	1	X
		40	0	0	WS	0	WS	1	WS	1	X
	16"	24	0	0	0	0	0	0	0	0	WS
		26	0	0	0	0	0	WS	0	0	WS
		28	0	0	0	0	0	WS	0	0	WS
		30	0	0	0	0	0	WS	0	WS	WS
		32	0	0	0	0	0	WS	0	WS	1
		34	0	0	WS	0	0	WS	0	WS	1
		36	0	0	WS	0	WS	WS	0	WS	1
		38	0	0	WS	0	WS	WS	WS	WS	1
		40	0	0	WS	0	WS	1	WS	WS	X

AJS® 190

Joist Depth [in]	Joist Series	Roof Truss Span [ft]	Roof Total Load [psf] 35 Joist Spacing [in] 16	19.2	24	45 16	19.2	24	55 16	19.2	24
14	9½"	24	0	0	1	0	0	2	0	2	X
		26	0	0	1	0	1	X	1	2	X
		28	0	0	1	0	1	X	1	X	X
		30	0	0	2	0	2	X	1	X	X
		32	0	0	2	1	2	X	2	X	X
		34	0	1	X	1	2	X	2	X	X
		36	0	1	X	1	X	X	X	X	X
		38	0	1	X	2	X	X	X	X	X
		40	0	2	X	2	X	X	X	X	X
	11⅞"	24	0	0	0	0	0	WS	0	0	1
		26	0	0	0	0	0	1	0	0	2
		28	0	0	0	0	0	1	0	1	X
		30	0	0	0	0	0	1	0	1	X
		32	0	0	WS	0	0	2	0	1	X
		34	0	0	1	0	0	X	0	1	X
		36	0	0	1	0	1	X	1	2	X
		38	0	0	1	0	1	X	1	X	X
		40	0	0	1	0	1	X	1	X	X
	14"	24	0	0	0	0	0	0	0	0	WS
		26	0	0	0	0	0	WS	0	0	WS
		28	0	0	0	0	0	WS	0	WS	1
		30	0	0	0	0	0	WS	0	WS	1
		32	0	0	0	0	0	WS	0	WS	1
		34	0	0	WS	0	0	1	0	WS	X
		36	0	0	WS	0	WS	1	0	1	X
		38	0	0	WS	0	WS	1	0	1	X
		40	0	0	WS	0	WS	1	WS	WS	X
	16"	24	0	0	0	0	0	0	0	0	WS
		26	0	0	0	0	0	WS	0	0	WS
		28	0	0	0	0	0	WS	0	0	WS
		30	0	0	0	0	0	WS	0	WS	WS
		32	0	0	0	0	0	WS	0	WS	1
		34	0	0	WS	0	0	WS	0	WS	1
		36	0	0	WS	0	WS	WS	0	WS	1
		38	0	0	WS	0	WS	WS	WS	WS	1
		40	0	0	WS	0	WS	1	WS	WS	X

AJS® 25

Joist Depth [in]	Joist Series	Roof Truss Span [ft]	Roof Total Load [psf] 35 Joist Spacing [in] 16	19.2	24	45 16	19.2	24	55 16	19.2	24
14	9½"	24	0	0	1	0	0	X	0	2	X
		26	0	0	1	0	1	X	1	X	X
		28	0	0	2	0	1	X	1	X	X
		30	0	0	2	0	2	X	2	X	X
		32	0	0	X	1	2	X	2	X	X
		34	0	1	X	1	X	X	X	X	X
		36	0	1	X	1	X	X	X	X	X
		38	0	2	X	2	X	X	X	X	X
		40	0	2	X	2	X	X	X	X	X
	11⅞"	24	0	0	0	0	0	0	0	0	2
		26	0	0	0	0	0	1	0	0	2
		28	0	0	0	0	0	1	0	1	X
		30	0	0	0	0	0	2	0	1	X
		32	0	0	0	0	0	2	0	1	X
		34	0	0	1	0	0	2	0	2	X
		36	0	0	1	0	1	X	1	2	X
		38	0	0	1	0	1	X	1	X	X
		40	0	0	2	0	1	X	1	X	X
	14"	24	0	0	0	0	0	0	0	0	0
		26	0	0	0	0	0	0	0	0	0
		28	0	0	0	0	0	0	0	0	1
		30	0	0	0	0	0	0	0	0	1
		32	0	0	0	0	0	0	0	0	2
		34	0	0	0	0	0	1	0	0	2
		36	0	0	0	0	0	1	0	1	2
		38	0	0	0	0	0	1	0	1	X
		40	0	0	0	0	0	2	0	1	X
	16"	24	0	0	0	0	0	0	0	0	0
		26	0	0	0	0	0	0	0	0	0
		28	0	0	0	0	0	0	0	0	WS
		30	0	0	0	0	0	0	0	0	WS
		32	0	0	0	0	0	0	0	0	1
		34	0	0	0	0	0	0	0	0	1
		36	0	0	0	0	0	WS	0	0	1
		38	0	0	0	0	0	WS	0	0	1
		40	0	0	0	0	0	1	0	WS	2

KEY TO TABLE

0 . . . . No Reinforcement Required

WS . . . . Web Stiffeners at Support

1 . . . . Web Stiffeners Plus One Reinforcer

2 . . . Web Stiffeners Plus Two Reinforcers

X . . . . Use Deeper Joists or Closer Spacing

Notes

1 Cut 48" long reinforcers to match the joist depth Use $^{23}/_{32}$" APA Rated Sheathing, Exposure 1, 48/24 Span Rating panels The face grain must be horizontal (measure the 48" dimension along the long edge of the panel)

2 Fasten the reinforcer to the joist flanges with 8d nails at 6" o c When reinforcing both sides, stagger the nails to avoid splitting the joist flanges

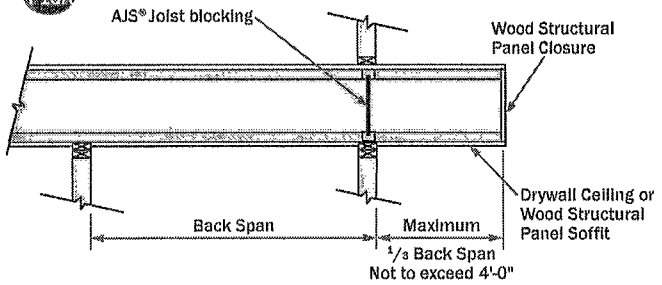
3 Attach web stiffeners per intermediate Web Stiffener Nailing Schedule on page 4

4 Use the BC CALC® software to analyze conditions that are not covered by this table

Non-Load Bearing Wall Cantilever Details

AJS® Joists are intended only for applications that provide permanent protection from the weather

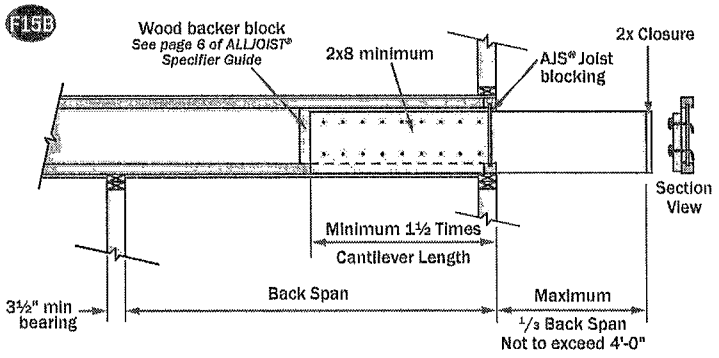
F15A



- These details apply to cantilevers with uniform loads only
- It may be possible to exceed the limitations of these details by analyzing a specific application with the BC CALC® software

Fasten the 2x8 minimum to the AJS® Joist by nailing through the backer block and joist web with 2 rows of 10d nails at 6" on center Clinch all nails.

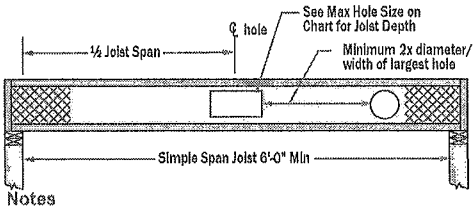
F15B



Large Rectangular Holes in AJS® Joists

Hole size table based on maximum uniform load of 40 psf live load and 15 psf dead load, at maximum spacing of 24" on-center

Single Span Joist

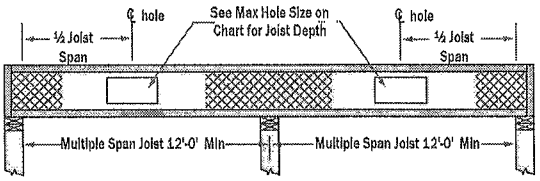


Notes

Additional holes may be cut in the web provided they meet the specifications as shown in the hole distance chart shown above or as allowed using BC CALC® sizing software

Joist Depth	Maximum Hole Size	
	Simple Span	Multiple Span
9½"	6' x 12"	6 x 7"
11⅞"	8" x 13"	8" x 8"
14	9" x 16"	8" x 13'
	10" x 14"	9 x 11'
16"	11' x 16"	10" x 14"
	12' x 15'	11" x 12"

Multiple Span Joist

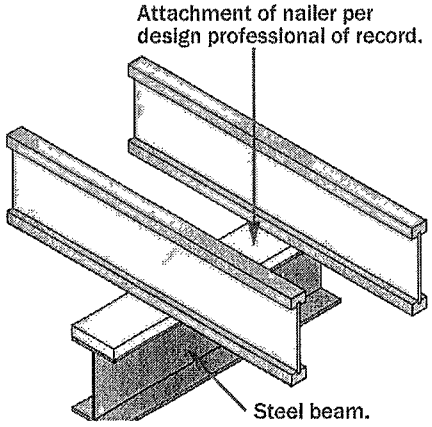


Larger holes may be possible for either Single or Multiple span joists, use BC CALC® sizing software for specific analysis

AJS® Joists — Connection Details

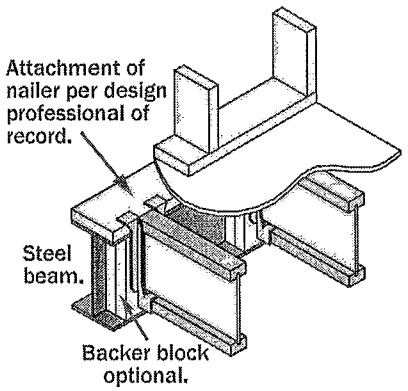
Connection on Steel Beam

F15D



Connection with Hanger on Steel Beam

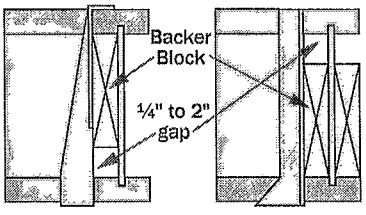
F15E



Hanger Connections to AJS Headers

F16D

- Backer blocks shall be at least 12" long per hanger
- Nails shall be clinched when possible
- Verify capacity and fastening requirements of hangers and connectors



"Top Mount" Backer block shall be tight to bottom of top flange with ¼" to 2" gap at top of bottom flange.

"Face Mount" Backer block shall be tight to bottom of top flange with ¼" to 2" gap at top of bottom flange.

AJS® Design Properties

AJS® Joist Series	Depth [inches]	Weight [plf]	Moment M_r [ft-lbs]	EI x 10^6 [lb-in²]	K x 10^6 [lbs]	Shear V_r [lbs]	End Reaction [lbs]				Intermediate Reaction [lbs]			
							1½" Bearing		3½" Bearing		3½" Bearing		5¼" Bearing	
							No WS(1)	WS(2)	No WS(1)	WS(2)	No WS(1)	WS(2)	No WS(1)	WS(2)
AJS® 140	9½	2 2	2450	182	5 2	1160	950	1240	1175	1480	2350	2450	2350	2450
	11⅞	2 5	3175	310	6 6	1490	955	1335	1215	1595	2390	2800	2390	2800
	14	2 8	3825	457	7 8	1790	960	1420	1250	1700	2430	3130	2430	3130
	16	3 1	4435	623	9 0	2065	970	1500	1285	1800	2465	3435	2465	3435
AJS® 150	9½	2 2	2820	194	5 2	1160	950	1240	1175	1480	2350	2450	2350	2450
	11⅞	2 5	3650	331	6 6	1490	955	1335	1215	1595	2390	2800	2390	2800
	14	2 8	4390	487	7.8	1790	960	1420	1250	1700	2430	3130	2430	3130
	16	3 1	5090	664	9 0	2065	970	1500	1285	1800	2465	3435	2465	3435
AJS® 20	9½	2 5	3395	232	5.2	1160	950	1240	1175	1480	2350	2450	2350	2450
	11⅞	2 8	4400	394	6.6	1490	955	1335	1215	1595	2390	2800	2390	2800
	14	3.0	5295	578	7 8	1790	960	1420	1250	1700	2430	3130	2430	3130
	16	3 3	6140	786	9.0	2065	970	1500	1285	1800	2465	3435	2465	3435
AJS® 190	9½	2 5	3895	244	5 2	1160	950	1240	1175	1480	2350	2450	2350	2450
	11⅞	2 8	5045	414	6.6	1490	955	1335	1215	1595	2390	2800	2390	2800
	14	3.0	6070	608	7 8	1790	960	1420	1250	1700	2430	3130	2430	3130
	16	3 3	7040	827	9.0	2065	970	1500	1285	1800	2465	3435	2465	3435
AJS® 25	9½	3 1	5370	322	5 3	1160	950	1240	1175	1480	2600	2850	2600	2850
	11⅞	3 4	6960	545	6 7	1490	955	1335	1215	1595	2690	3190	2690	3190
	14	3.7	8380	798	7.9	1790	960	1420	1250	1700	2770	3500	2770	3500
	16	3 9	9720	1082	9 1	2065	970	1500	1285	1800	2850	3800	2850	3800

NOTES

(1) No web stiffeners required
(2) Web stiffeners required
(3) Not applicable, web stiffeners required

- Moment, shear and reaction values based upon a load duration of 100% and may be adjusted for other load durations
- Design values listed are applicable for Allowable Stress Design (ASD)
- No additional repetitive member increase allowed.

BUILDING CODE EVALUATION REPORT

- ICC ESR 1144 (IBC, IRC)

$$\Delta = \frac{5wl^4}{384\,EI} + \frac{wl^2}{K}$$

Δ = deflection [in]
w = uniform load [lb/in]
l = clear span [in]
EI = bending stiffness [lb-in²]
K = shear deformation coefficient [lb]

VERSA-LAM® Design Values

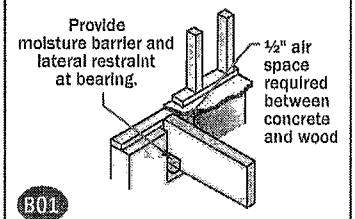
Grade	Width [in]	Depth [in]	Weight [lb/ft]	Allowable Shear [lb]	Allowable Moment [ft-lb]	Moment of Inertia [in⁴]
VERSA-STUD® 1 7 2650	1½	3½	1 5	998	776	5 4
		5½	2 4	1568	1821	20 8
		7¼	3 2	2066	3069	47 6
VERSA-LAM® 2 0 3100	1¾	3½	1 8	1164	1058	6 3
		5½	2 8	1829	2486	24 3
		7¼	3 7	2411	4189	55 6
		9¼	4 7	3076	6636	115 4
		9½	4 8	3159	6979	125 0
		11¼	5 7	3741	9605	207 6
		11⅞	6 0	3948	10638	244 2
		14	7 1	4655	14517	400 2
		16	8 1	5320	18682	597 3
		18	9 1	5985	23337	850 5
		24	12 2	7980	40183	2016 0
	3½	5½	5 6	3658	4971	48 5
		7¼	7 4	4821	8377	111 1
		9¼	9 4	6151	13272	230 8
		9½	9 6	6318	13958	250 1
		11¼	11 4	7481	19210	415 3
		11⅞	12 1	7897	21275	488 4
		14	14 2	9310	29035	800 3
		16	16 2	10640	37364	1194 7
		18	18 3	11970	46674	1701 0
		20	20 3	13300	56952	2333 3

Grade	Width [in]	Depth [in]	Weight [lb/ft]	Allowable Shear [lb]	Allowable Moment [ft-lb]	Moment of Inertia [in⁴]
VERSA-LAM® 2.0 3100	5¼	5¼	8 0	5237	6830	63 3
		5½	8 4	5486	7457	72 8
		7¼	11 0	7232	12566	166 7
		9¼	14 1	9227	19908	346 3
		9½	14 5	9476	20937	375 1
		11¼	17 1	11222	28814	622 9
		11⅞	18 1	11845	31913	732 6
		14	21.3	13965	43552	1200 5
		16	24 4	15960	56046	1792 0
		18	27 4	17955	70011	2551 5
		20	30 4	19950	85428	3500 0
		24	36 5	23940	120549	6048 0
	7	9¼	16 6	12303	26544	461 7
		9½	17 1	12635	27916	500 1
		11¼	20 2	14963	38419	830 6
		11⅞	21 4	15794	42550	976 8
		14	25 2	18620	58069	1600 7
		16	28 8	21280	74728	2389 3
		18	32 4	23940	93348	3402 0
		20	36 0	26600	113904	4666 7
		24	43 2	31920	160732	8064 0

VERSA-LAM® Beam Details/Allowable Nailing/Holes

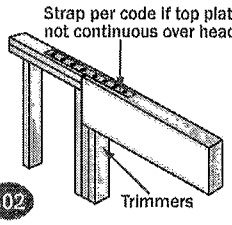
VERSA-LAM® Beam Details

Bearing at concrete/masonry walls



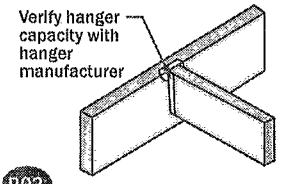
B01

Bearing for door or window header



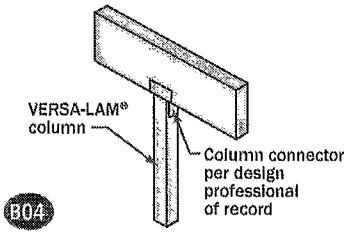
B02

Beam to beam connector



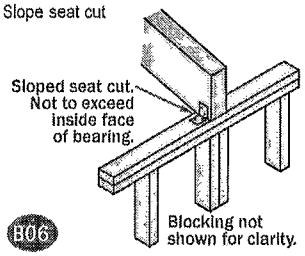
B03

Bearing at column



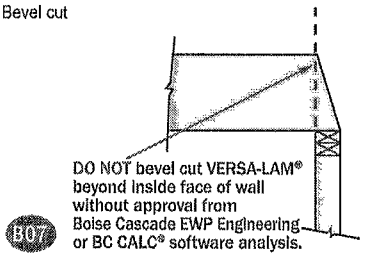
B04

Slope seat cut



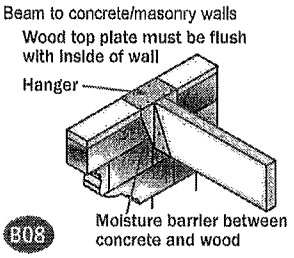
B06

Bevel cut



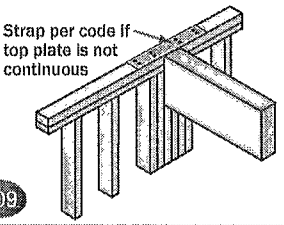
B07

Beam to concrete/masonry walls



B08

Bearing framing into wall



B09

VERSA-LAM® Installation Notes

- Minimum of ½" air space between beam and wall pocket or adequate barrier must be provided between beam and concrete/masonry
- Adequate bearing shall be provided If not shown on plans please refer to load tables in your region's Specifier Guide
- VERSA-LAM® beams are intended for interior applications only and should be kept as dry as possible during construction
- Continuous lateral support of top of beam shall be provided (side or top bearing framing)

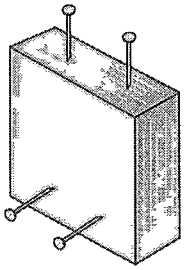
Closest Allowable Nail Spacing

VERSA-LAM® & VERSA-RIM® Products

Nail Size	Nailing Parallel to Glue Lines (Narrow Face)[1]						Nailing Perpendicular to Glue Lines (Wide Face)	
	VERSA-LAM® 1.4 1800 Rimboard 1⁵/₁₆"		VERSA-LAM® 1¾"		VERSA-LAM® 3½" & Wider		All Products	
	O.C. [inches]	End [inches]	O.C. [inches]	End [inches]	O.C. [inches]	End [inches]	O.C. [inches]	End [inches]
8d Box	3	1½	2	1	2	½	2	½
8d Common	3	2	3	2	2	1	2	1
10d & 12d Box	3	2	3	2	2	1	2	1
16d Box	3	2	3	2	2	1	2	1
10d & 12d Common	4	3	4	3	2	2	2	2
16d Sinker	4	3	4	3	2	2	2	2
16d Common	6	4	6	3	2	2	2	2

- Offset and stagger nail rows from floor sheathing and wall sole plate
- Simpson Strong-Tie A35 and LPT4 connectors may be attached to the side VERSA-LAM®/VERSA-RIM® Use nails as specified by Simpson Strong-Tie

Nailing Parallel to Glue Lines (Narrow Face)



Nailing Perpendicular to Glue Lines (Wide Face)

Nailing Notes

1) For 1¾ thickness and greater 2 rows of nails (such as for a metal strap) are allowed (use ½ minimum offset between rows and stagger nails)

Allowable Holes in VERSA-LAM® Beams

Notes

1 Square and rectangular holes are not permitted

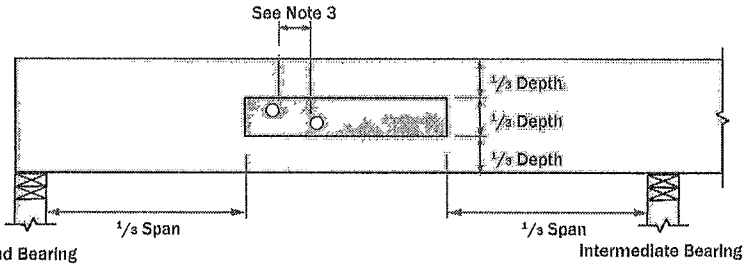
2 Round holes may be drilled or cut with a hole saw anywhere within the shaded area of the beam

3 The horizontal distance between adjacent holes must be at least two times the size of the larger hole

4 Do not drill more than three access holes in any four foot long section of beam

5 The maximum round hole diameter permitted is

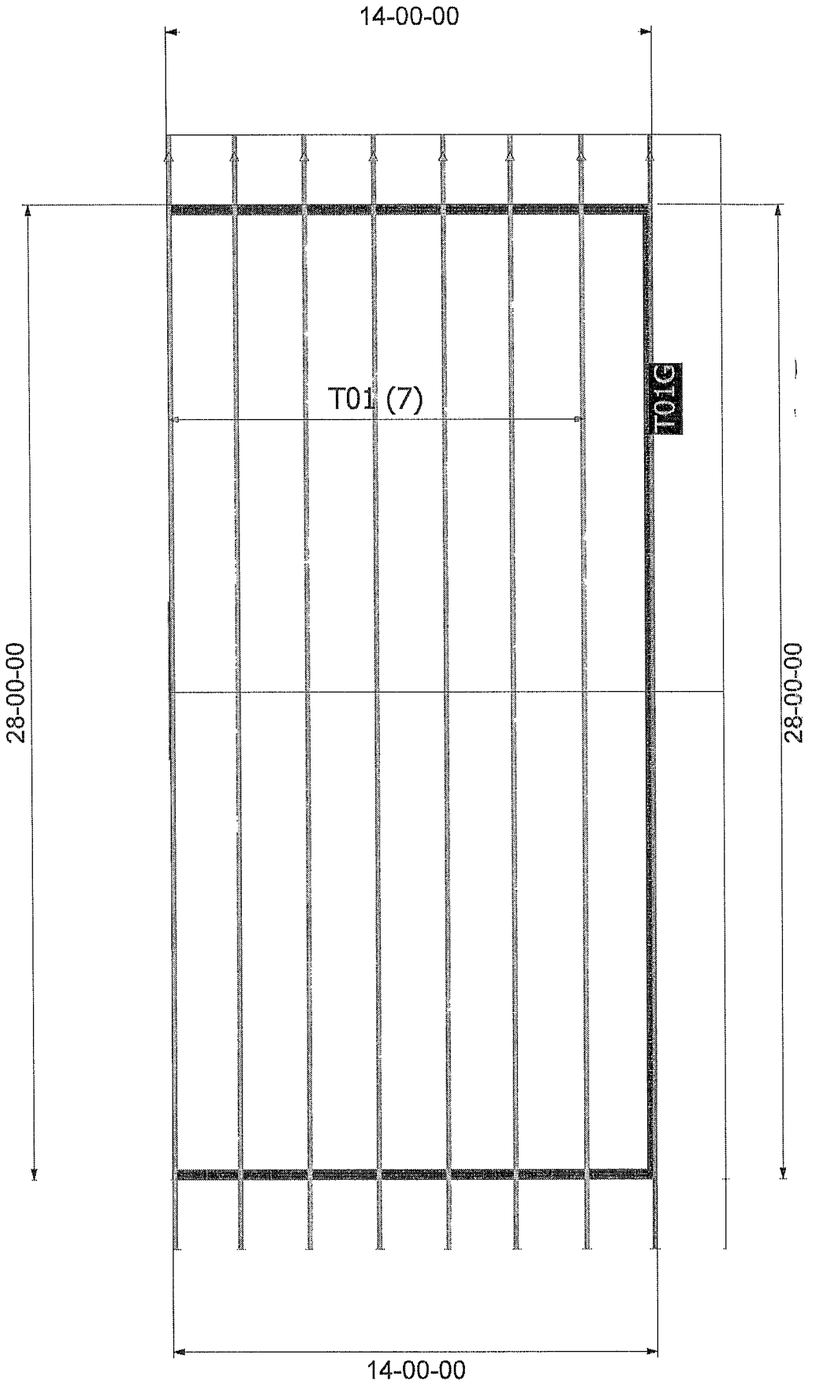
Beam Depth	Max. Hole Diameter
5½"	¾"
7¼"	1"
9¼" and greater	2"



6 These limitations apply to holes drilled for plumbing or wiring access only The size and location of holes drilled for fasteners are governed by the provisions of the *National Design Specification® for Wood Construction*

7 Beams deflect under load Size holes to provide clearance where required

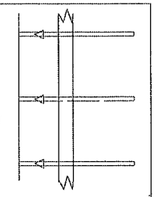
8 This hole chart is valid for beams supporting uniform load only For beams supporting concentrated loads or for beams with larger holes, contact Boise Cascade EWP Engineering



4/12 PITCH
24" O/H

M TEK PLATE APPROVAL # S 2 97 2 2 97 4 BO SE EWP PRODUCT # S LVL FL 644 R2 BC JO STS FL 392 R2

THE ARROW HEAD AT THE END OF THE TRUSS ON THE TRUSS PLACEMENT PLAN (LAYOUT) CORRESPONDS WITH THE LEFT SIDE OF THE INDIVIDUAL TRUSS DRAWING USE THIS AS AN ORIENTATION GUIDE WHEN SETTING THE TRUSSES ON THE STRUCTURE



General Notes-

Per ANSI/TPI 1 2002 all Truss to Wall connections are the responsibility of the Building Designer not the Truss Manufacturer

Use Manufacturer's specifications for all hanger connections unless noted otherwise

Trusses are to be 24 o c U N O

All hangers are to be Simpson or equivalent U N O Use 10d x 1 1/2" Nails in hanger connections to single ply girder trusses.

Trusses are not designed to support brick U N O

Dimensions are Feet Inches Sixteenths

No back charges will be accepted by Builders FirstSource unless approved in writing first 850-835-4541

ACQ lumber is corrosive to truss plates. Any ACQ lumber that comes in contact with truss plates (i.e scabbed on tails) must have an approved barrier applied first.

Refer to BCSI B1 Summary Sheet-Guide for handling, Installing and Bracing of Metal Plate Connected Wood Truss prior to and during truss installation.

It is the responsibility of the Contractor to ensure of the proper orientation of the truss placement plans as to the construction documents and field conditions of the structure orientation If a reversed or flipped layout is required it will be supplied at no extra cost by Builders FirstSource

It is the responsibility of the Contractor to make sure the placement of trusses are adjusted for plumbing drops, can lights, ect so the trusses do not interfere with these type of items

All common framed roof or floor systems must be designed as to NOT impose any loads on the floor trusses below The floor trusses have not been designed to carry any additional loads from above

This truss placement plan was not created by an engineer but rather by the Builders FirstSource staff and is solely to be used as an installation guide and does not require a seal Complete truss engineering and analysis can be found on the truss design drawings which may be sealed by the truss design engineer

Gable end trusses require continuous bottom chord bearing Refer to local codes for wall framing requirements.

Although all attempts have been made to do so, trusses may not be designed symmetrically Please refer to the individual truss drawings and truss placement plans for proper orientation and placement

Builders FIRSTSOURCE

C
PHONE 386-755-6894
FAX 386-755-7973

PHONE 904-772-6100
FAX 904-772-1973

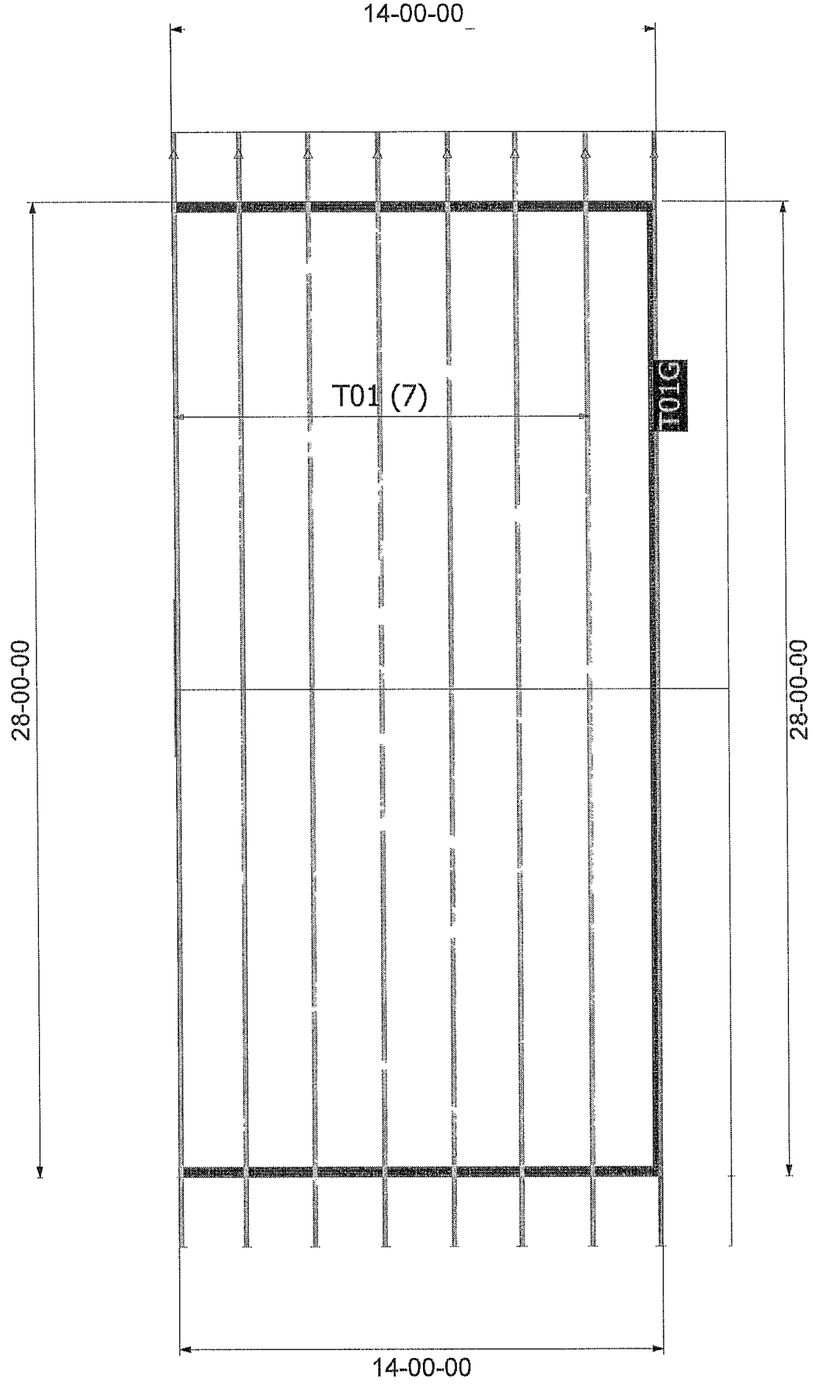
PHONE 850-576-5177

Builder
Darrell & Leslie Johnson

Legal Address
Johnson Addition

Model
Custom

Date	Drawn By:	Original Ref #
2-23-23	KLH	3440001
Floor 1 Job#	Floor 2 Job#	Roof Job #
N/A	N/A	3440001



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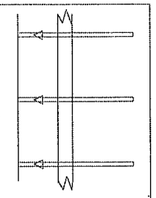

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