

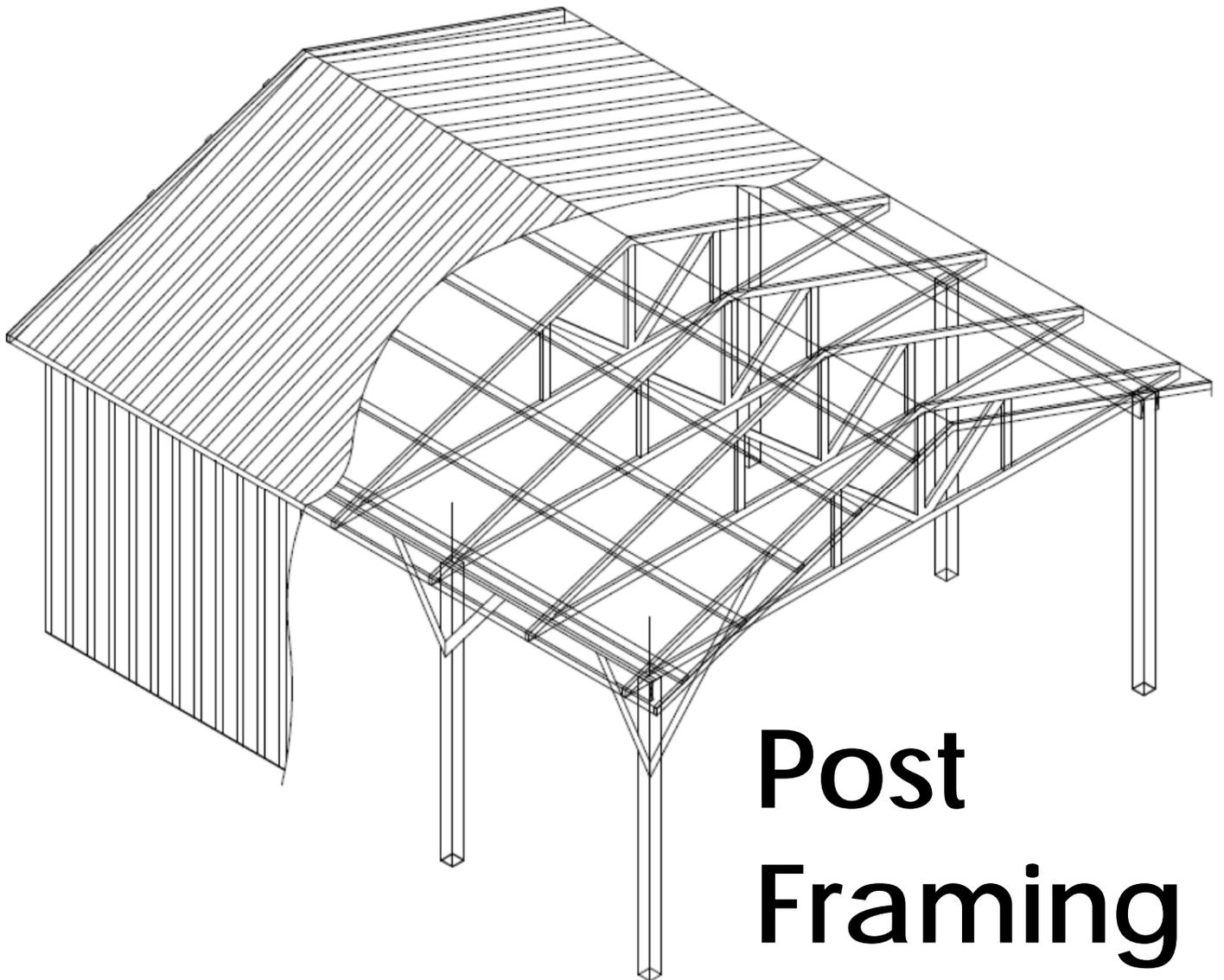


Rowan County Building Code Enforcement

402 North Main Street • Suite 207 • Salisbury, N.C. 28144-4341

Office: 704-216-8619

Fax: 704-638-3130



Post Framing Manual

Introduction

This manual has been prepared for the sole use of the citizens of Rowan County including the Cities and Towns within, who wish to construct or have constructed a post frame accessory building on their own property for residential use. The manual contains prescriptive member sizing and maximum allowable span charts for enclosed and unenclosed post frame structure assemblies. All other elements of the proposed building not described in this manual must meet the current North Carolina Residential Code, as applicable. These elements may include, but are not limited to: concrete slabs, footings, foundation walls, roof trusses, roofing, insulation, plumbing systems, hvac components, electrical systems, finishes, doors and windows.

Limitations of this Manual

1. This manual shall not be used for any commercial project or for any project otherwise requiring the seal of a licensed design professional.
2. This manual shall be applied only to **accessory residential structures** in Rowan County, NC and shall not be used for the design of a primary residential or dwelling on any property.
Note: Post frame construction is allowable for primary residential dwellings but requires sealed drawings from a design professional for the specific project and is outside the scope of this document.
3. This manual limits the **maximum building width to 24 feet** and a **maximum building length to 30 feet**.
4. This manual sets a minimum roof slope of **4:12** and a maximum roof slope of **6:12**.
5. This manual shall not be used for multi-story assemblies.

Procedures

A summary sheet is provided to assist you in your selections through the various charts in this manual. Follow the summary in order, and fill in the information on this sheet. This will ensure that all of the items required for safe construction are checked, and that the requirements for each section are known before you start construction. Design aids and specific requirements for each selection are found in the following sections:

Data sheet – p.4

Section A: Rafter/Ceiling Joist

Section B: Pre-Engineered Truss

Section C: Header

Section D: Exterior Requirements

Section E: Post

Section F: Foundation Requirements

Section G: Connections & Bracing Requirements

References

Preface

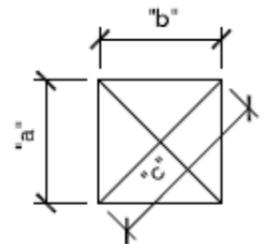
The charts and figures associated with this manual were conservatively analyzed using ASCE 7-10 and ASAE EP486.2. The following design criteria was used in order to provide the most stringent conditions in Rowan County, and applied this condition to all structures covered in this manual. Reduction of values and sizes found in this manual is prohibited, unless a licensed design professional has evaluated your specific building and site.

Design Criteria:

Wind Speed	90 mph	Exposure	C
Occupancy Category	1	Design Basis	ASD Design (0.6)
Topographic Factor	1.0 - Assumes land elevation change maximum is double in a 2 mile radius		
Building Modeling	(1) Open	(2) Partially Enclosed	
	Gable Roof	Gable Roof	
	Obstructed Wind Flow	No Reduction Factor	
Ground Snow Load	12 psf		
Dead Load	5 psf (for uplift calculations metal roof on purlins – worst case)		
	10 psf (for dead load on footing sheathing and shingles – worst case)		
Roof Live Load	20 psf		

Dimensional Data

	a (in)	b (in)	c (in)	c* (ft)	I in ⁴	S in ³
4" x 4"	3.5	3.5	4.95	0.41	12.51	7.15
4" x 6"	3.5	5.5	6.52	0.54	48.53	17.65
6" x 6"	5.5	5.5	7.78	0.65	76.26	27.73
8" x 8"	7.5	7.5	10.61	0.88	263.67	70.31



Round poles acceptable with equivalent diameter = "c"

Southern Pine Referenced Design Values

	Bending F _b (psi)	Tension Parallel to Grain F _t (psi)	Shear Parallel to Grain F _v (psi)	Compression Perp to Grain F _{cP} (psi)	Compression Parallel to Grain F _c (psi)	Modulus of Elasticity E (in ⁴)
4" x 4"	935	675	169.8	378.6	1160	1080000
4" x 6"	850	600	169.8	378.6	1120	1080000
6" x 6"	722.5	550	160.1	251.3	420	1080000
8" x 8"	722.5	550	160.1	251.3	420	1080000

Values Includes service factors from Southern Pine Guide

CIRCLE EACH CHOICE. FILL IN THE CORRESPONDING BOX ON THE DRAWING .

STEP 1: CHOOSE A BUILDING WIDTH

12'-0" 16'-0" 20'-0" 24'-0"

STEP 2: CHOOSE MAXIMUM POST SPACING

8'-0" 9'-0" 10'-0"

STEP 3: THE BUILDING LENGTH IS: _____

STEP 4: CHOOSE MAXIMUM HEIGHT

8'-0" 9'-0" 10'-0" 12'-0" 16'-0"

STEP 5: CHOOSE ROOF CONSTRUCTION TYPE

RAFTER/CEILING JOIST (SECTION A)

PRE-ENGINEERED TRUSS (SECTION B)

STEP 6: SELECT REQUIRED HEADER (SECTION C)

(2) 2"x8" (3) 2"x6" (4) 2" X 10"
 (2) 2"x10" (3) 2"x8"
 (2) 2"x12" (3) 2"x10"
 (3) 2"x12"

STEP 7: DETERMINE EXTERIOR REQUIREMENTS (SECTION D)

OPEN
 ENCLOSED SIDES 2 3 4

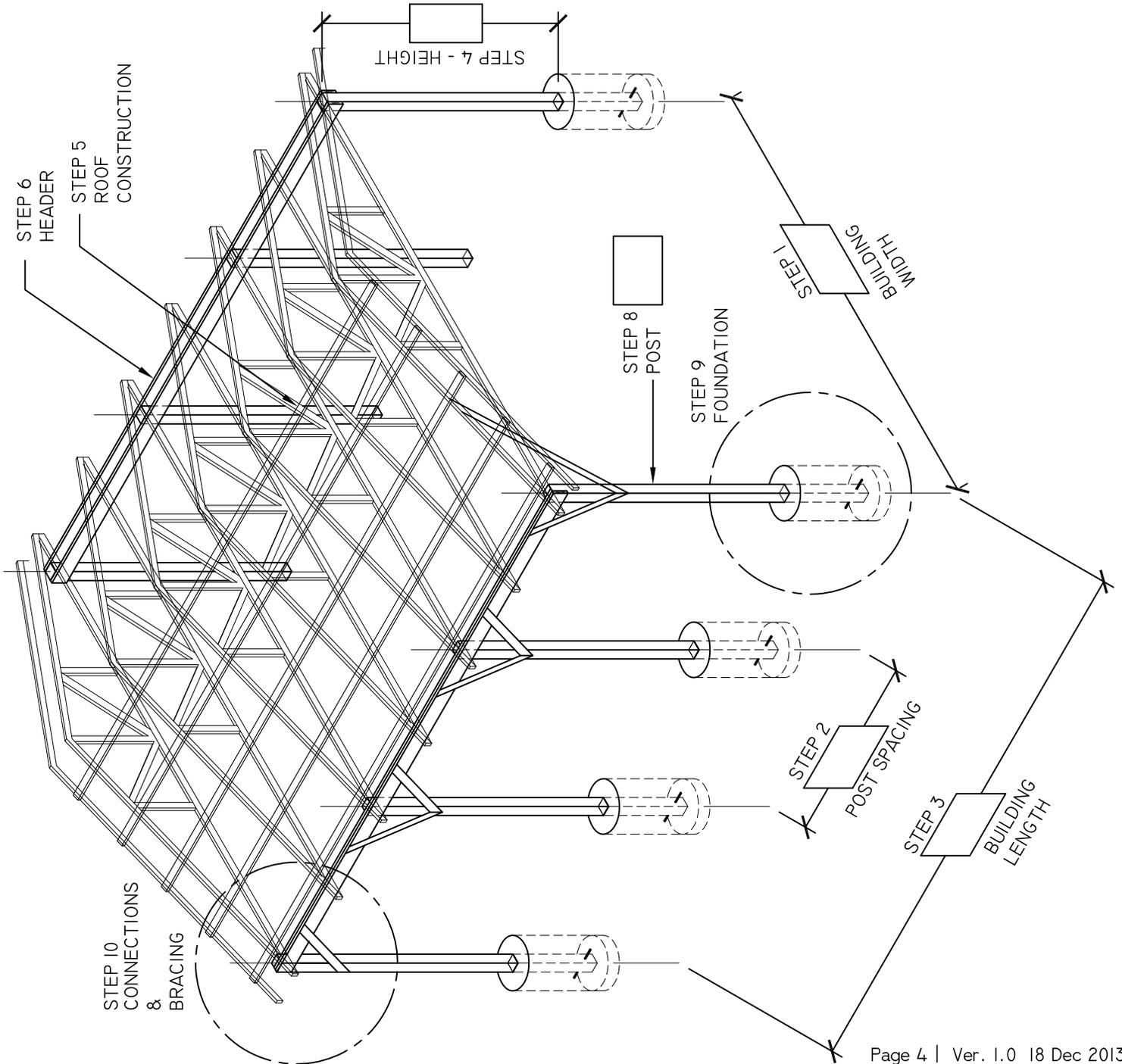
STEP 8: SELECT REQUIRED POST (SECTION E)
 TABLES E-1 THRU E-10

4"x4" 4"x6" 6"x6" 8"x8"

STEP 9: DETERMINE FOUNDATION REQUIREMENTS FOR SIZING SEE SECTION E (TABLES E-1 THRU E-10)

DIAMETER OF HOLE: _____ inches
 DEPTH OF HOLE: _____ inches
 SEE (SECTION F) FOR REQUIREMENTS

STEP 10: CHOOSE CONNECTION OPTIONS (SECTION G)



SECTION A: RAFTER/CEILING JOIST

If traditional rafter and ceiling joists are chosen, the following is adapted from Chapter 8 – Roof-Ceiling Construction found in the 2012 NC Residential Building Code. For other combinations of joists and spans not shown here, a copy of the code can be viewed for free at the following website

http://ecodes.biz/ecodes_support/free_resources/2012NorthCarolina/Residential/Part_I_Residential/PDFs/08_NC_Res_2012.pdf

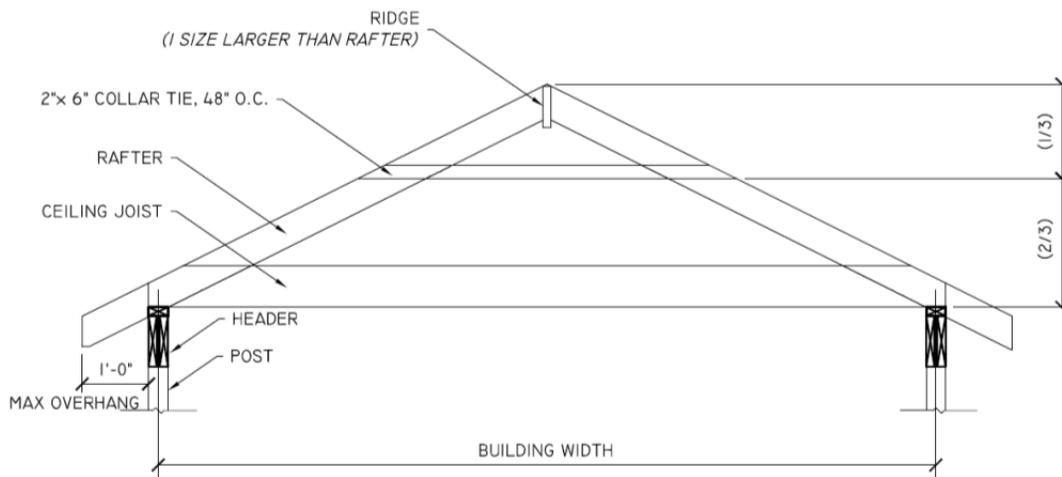
Calculations have been based on the following information:

Material: No.2 Southern Pine

Type: Pressure Treated – UC3A – Above Ground Use, Protected

Loading: 20 psf live load roof 10 psf live load ceiling joist
10 psf dead load roof 5 psf dead load ceiling joist
12 psf snow load roof

Tributary area: Ceiling Joist: Building Width x Spacing o.c.
Rafters: Spacing o.c. x 1/2 Building Width



For Connections, Nailing, and Bracing, See appendix G

The following tables list the acceptable ceiling joist and rafter sizes for the Building Width (Step 1) chosen by the user.

Table A-1 : Ceiling Joists

		BUILDING WIDTH (STEP 1)			
		12'-0"	16'-0"	20'-0"	24'-0"
CEILING JOIST SPACING	12" O.C.	2"x4"	2"x6"	2"x8"	2"x10"
	16" O.C.	2"x6"	2"x6"	2"x8"	2"x10"
	24" O.C.	2"x6"	2"x8"	2"x8"	2"X10"

Table A-2 : Rafters

		BUILDING WIDTH (STEP 1)			
		12'-0"	16'-0"	20'-0"	24'-0"
RAFTER SPACING	12" O.C.	2"x4"	2"x4"	2"x6"	2"x6"
	16" O.C.	2"x4"	2"x4"	2"x6"	2"x6"
	24" O.C.	2"x4"	2"x4"	2"X6"	2"X8"

Notes:

1. Collar ties are required in the upper 1/3 at 48" o.c. per the detail.
2. Maximum Overhang is 12"

SECTION B: PRE-ENGINEERED TRUSS

If Pre-Engineered Trusses are used, the truss manufacturer shall provide sealed drawings

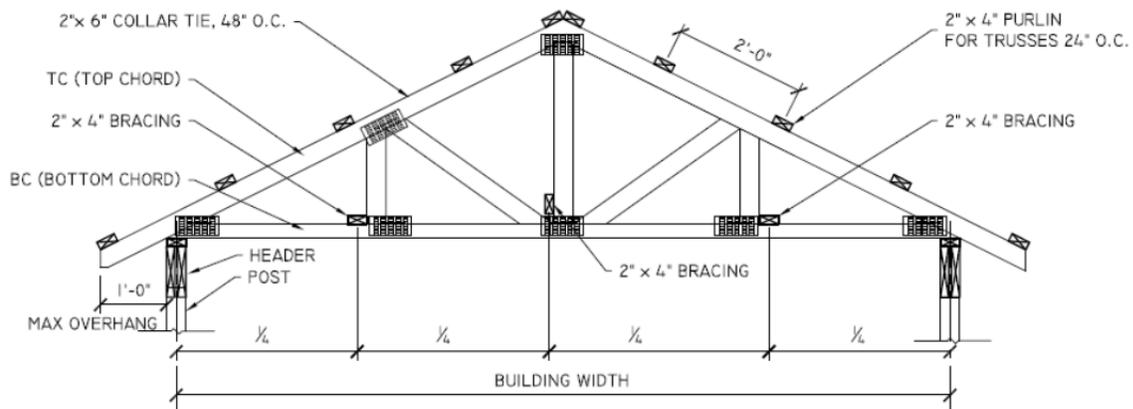
Material: No.2 Southern Pine

Loading: TCLL 20 psf
TCDL 10 psf
BCDL 5 psf

Spacing: 24" o.c. or 48" o.c.

Bracing: Trusses shall be minimally braced with (3) 2" x 4" at (1/4) distance as shown – or as directed by truss manufacturer.

Figure B-1: Typical Truss Components



For Connections, Nailing, and Bracing, See appendix G

SECTION C: HEADER

Calculations have been based on the following information:

Material: No.2 Southern Pine

Type: Pressure Treated – UC3A – Above Ground Use, Protected

Loading: 20 psf live load
10 psf dead load
12 psf snow load

Tributary area: Post Spacing x (1/2 Building Width)

The following table lists the acceptable header sizes for the Building Width (Step 1) and Post Spacing (Step 2) chosen by the user.

		BUILDING WIDTH (STEP 1)			
		12'-0"	16'-0"	20'-0"	24'-0"
POST SPACING (STEP 2)	8'-0"	(2) 2"x8"	(2) 2"x8"	(2) 2"x10"	(2) 2"x10"
		(3) 2"x6"	(3) 2"x6"	(3) 2"x8"	(3) 2"x8"
	9'-0"	(2) 2"x10"	(2) 2"x10"	(2) 2"x12"	
		(3) 2"x8"	(3) 2"x8"	(3) 2"x10"	(3) 2"x10"
	10'-0"	(2) 2"x10"	(2) 2"x12"		(3) 2"x12"
		(3) 2"x8"	(3) 2"x10"	(3) 2"x10"	(4) 2"x10"

For Connections, Nailing, and Bracing, See appendix G

SECTION D: EXTERIOR REQUIREMENTS

Minimum Roofing

Metal:

- 2" x 4" Purlin – 24" o.c.
- (3) 16d Nails
- Minimum 26 Ga. Metal

Asphalt Shingles:

- ½" Plywood Sheathing (no OSB)
- 15 lb Felt
- Minimum 3 tab Shingle

Building

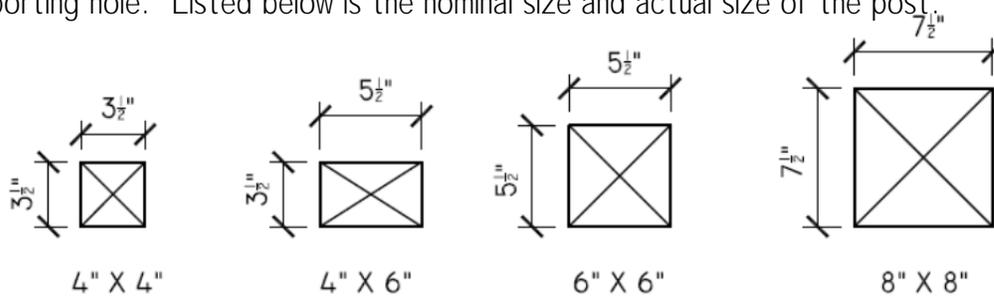
Open Building – Shall have knee braces at each post. See Details in Section G

Partially or Fully Enclosed – Shall have 2 or more sides enclosed with 2" X 6" Pressure Treated girts, 24" o.c., and a minimum of 26 Ga. Metal. See Details Section G.

SECTION E: REQUIRED POST

The following tables (E-1 thru E-10) determine post size. They are based upon Step 1 (Building Width) and Step 2 (Maximum Post spacing), and are separated out based on Step 4 (Building Height).

The following posts sizes were used for computing the required depth and diameter of the supporting hole. Listed below is the nominal size and actual size of the post.



Material: No.2 Southern Pine
Type: Pressure Treated – UC4B – Ground Contact

Pressure treated lumber shall be treated according to AWPA (American Wood Protection Association) Standards. Each piece of lumber should be identified with a quality mark or end tag.

Table E-1

8'-0" TALL (STEP 4)		OPEN BUILDING				
		BUILDING WIDTH (STEP 1)				
		12'-0"	16'-0"	20'-0"	24'-0"	
POST SPACING (STEP 2)	8'-0"	4" x 4"	4" x 6"	4" x 6"	4" x 6"	POST SIZE
		16" / 42"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH
	9'-0"	4" x 6"	4" x 6"	4" x 6"	6" x 6"	POST SIZE
		16" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH
	10'-0"	4" x 6"	4" x 6"	4" x 6"	6" x 6"	POST SIZE
		16" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH

Table E-2

9'-0" TALL (STEP 4)		OPEN BUILDING				
		BUILDING WIDTH (STEP 1)				
		12'-0"	16'-0"	20'-0"	24'-0"	
POST SPACING (STEP 2)	8'-0"	4" x 6"	4" x 6"	4" x 6"	6" x 6"	POST SIZE
		24" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH
	9'-0"	4" x 6"	4" x 6"	4" x 6"	6" x 6"	POST SIZE
		24" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH
	10'-0"	4" x 6"	4" x 6"	6" x 6"	6" x 6"	POST SIZE
		24" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH

Table E-3

10'-0" TALL (STEP 4)		OPEN BUILDING				
		BUILDING WIDTH (STEP 1)				
		12'-0"	16'-0"	20'-0"	24'-0"	
POST SPACING (STEP 2)	8'-0"	4" x 6"	6" x 6"	6" x 6"	6" x 6"	POST SIZE
		24" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH
	9'-0"	4" x 6"	6" x 6"	6" x 6"	6" x 6"	POST SIZE
		24" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH
	10'-0"	4" x 6"	6" x 6"	6" x 6"	6" x 6"	POST SIZE
		24" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH

Table E-4

12'-0" TALL (STEP 4)		OPEN BUILDING				
		BUILDING WIDTH (STEP 1)				
		12'-0"	16'-0"	20'-0"	24'-0"	
POST SPACING (STEP 2)	8'-0"	6" x 6"	8" x 8"	8" x 8"	8" x 8"	POST SIZE
		24" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH
	9'-0"	6" x 6"	8" x 8"	8" x 8"	8" x 8"	POST SIZE
		24" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH
	10'-0"	6" x 6"	8" x 8"	8" x 8"	8" x 8"	POST SIZE
		24" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH

Table E-5

16'-0" TALL (STEP 4)		OPEN BUILDING				
		BUILDING WIDTH (STEP 1)				
		12'-0"	16'-0"	20'-0"	24'-0"	
POST SPACING (STEP 2)	8'-0"	8" x 8"	8" x 8"	8" x 8"		POST SIZE
		24" / 48"	24" / 48"	24" / 60"		HOLE / DEPTH
	9'-0"	8" x 8"	8" x 8"	8" x 8"		POST SIZE
		24" / 48"	24" / 60"	24" / 60"		HOLE / DEPTH
	10'-0"	8" x 8"	8" x 8"	8" x 8"		POST SIZE
		24" / 60"	24" / 60"	24" / 72"		HOLE / DEPTH

Table E-6

8'-0" TALL (STEP 4)		PARTIALLY ENCLOSED				
		BUILDING WIDTH (STEP 1)				
		12'-0"	16'-0"	20'-0"	24'-0"	
POST SPACING (STEP 2)	8'-0"	4" x 6"	6" x 6"	6" x 6"	6" x 6"	POST SIZE
		24" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH
	9'-0"	6" x 6"	6" x 6"	6" x 6"	8" x 8"	POST SIZE
		24" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH
	10'-0"	6" x 6"	6" x 6"	8" x 8"	8" x 8"	POST SIZE
		24" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH

Table E-7

9'-0" TALL (STEP 4)		PARTIALLY ENCLOSED				
		BUILDING WIDTH (STEP 1)				
		12'-0"	16'-0"	20'-0"	24'-0"	
POST SPACING (STEP 2)	8'-0"	4" x 6"	6" x 6"	6" x 6"	6" x 6"	POST SIZE
		24" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH
	9'-0"	6" x 6"	6" x 6"	6" x 6"	8" x 8"	POST SIZE
		24" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH
	10'-0"	6" x 6"	6" x 6"	8" x 8"	8" x 8"	POST SIZE
		24" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH

Table E-8

10'-0" TALL (STEP 4)		PARTIALLY ENCLOSED				
		BUILDING WIDTH (STEP 1)				
		12'-0"	16'-0"	20'-0"	24'-0"	
POST SPACING (STEP 2)	8'-0"	6" x 6"	6" x 6"	6" x 6"	8" x 8"	POST SIZE
		24" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH
	9'-0"	6" x 6"	6" x 6"	6" x 6"	8" x 8"	POST SIZE
		24" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH
	10'-0"	6" x 6"	6" x 6"	6" x 6"	8" x 8"	POST SIZE
		24" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH

Table E-9

12'-0" TALL (STEP 4)		PARTIALLY ENCLOSED				
		BUILDING WIDTH (STEP 1)				
		12'-0"	16'-0"	20'-0"	24'-0"	
POST SPACING (STEP 2)	8'-0"	6" x 6"	8" x 8"	8" x 8"	8" x 8"	POST SIZE
		24" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH
	9'-0"	6" x 6"	8" x 8"	8" x 8"	8" x 8"	POST SIZE
		24" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH
	10'-0"	6" x 6"	8" x 8"	8" x 8"	8" x 8"	POST SIZE
		24" / 48"	24" / 48"	24" / 48"	24" / 48"	HOLE / DEPTH

Table E-10

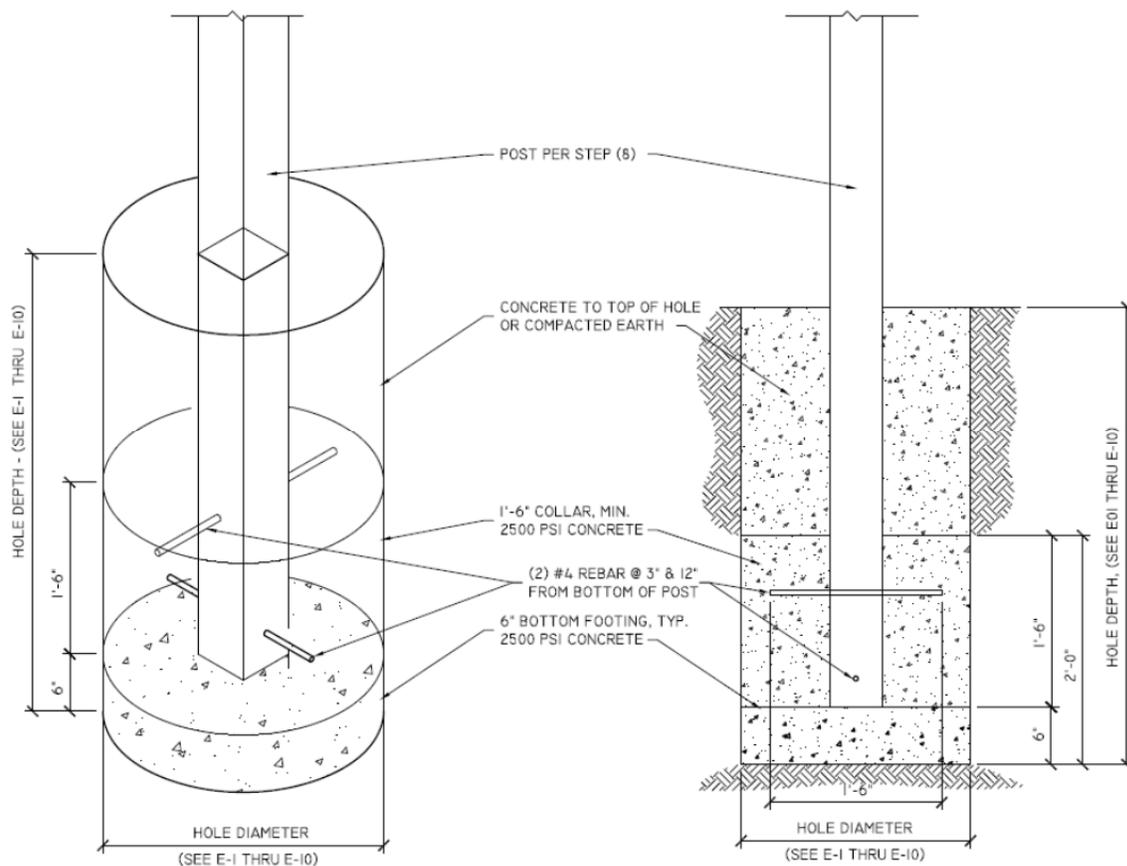
16'-0" TALL (STEP 4)		PARTIALLY ENCLOSED				
		BUILDING WIDTH (STEP 1)				
		12'-0"	16'-0"	20'-0"	24'-0"	
POST SPACING (STEP 2)	8'-0"	8" x 8"	8" x 8"	8" x 8"		POST SIZE
		24" / 48"	24" / 48"	24" / 60"		HOLE / DEPTH
	9'-0"	8" x 8"	8" x 8"	8" x 8"		POST SIZE
		24" / 48"	24" / 60"	24" / 60"		HOLE / DEPTH
	10'-0"	8" x 8"	8" x 8"	8" x 8"		POST SIZE
		24" / 60"	24" / 60"	24" / 72"		HOLE / DEPTH

SECTION F: FOUNDATION REQUIREMENTS

Bottom of Footing shall be excavated to depth required, and inspected. Inspection will be measuring physical depth of hole and width across to ensure holes meet requirements of this manual. Pour 6" Concrete footing at bottom of hole, allow 7 days before applying loads to concrete footing. Pour collar section once post is plumb & square. The post may be within 4" of edge of hole (out of plane center) for up to 6" x 6" Posts, and within 3" for 8" X 8" Post.

Refer to Tables E-1 thru E-10 for sizing of posts and foundation holes.

Figure F-1: Typical Hole Diagram



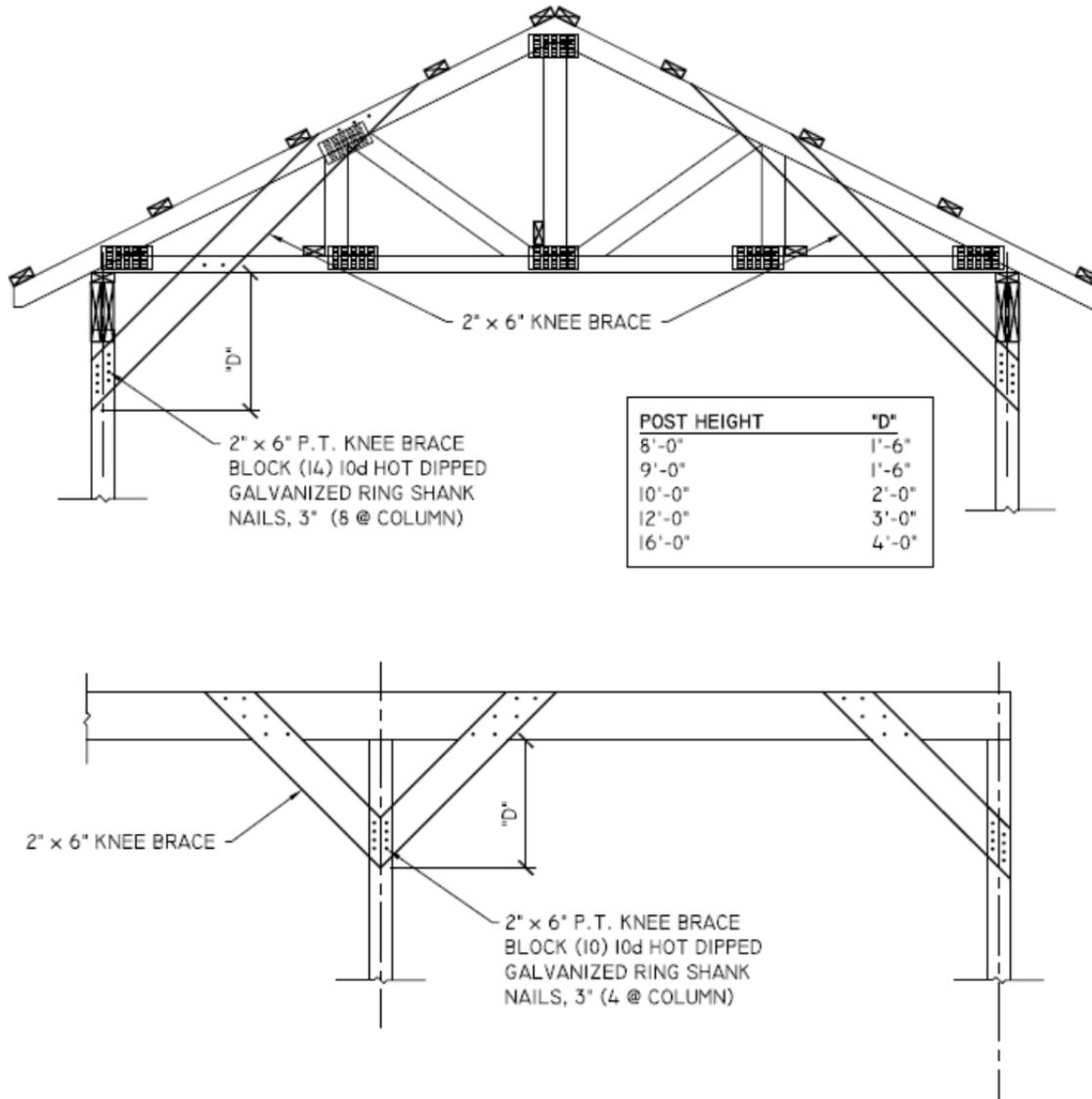
Required Inspections:

1. Holes only no concrete
2. 6" concrete fully cured, with post braced in place. No additional concrete poured prior to this inspection.

SECTION G: CONNECTIONS & BRACING REQUIREMENTS

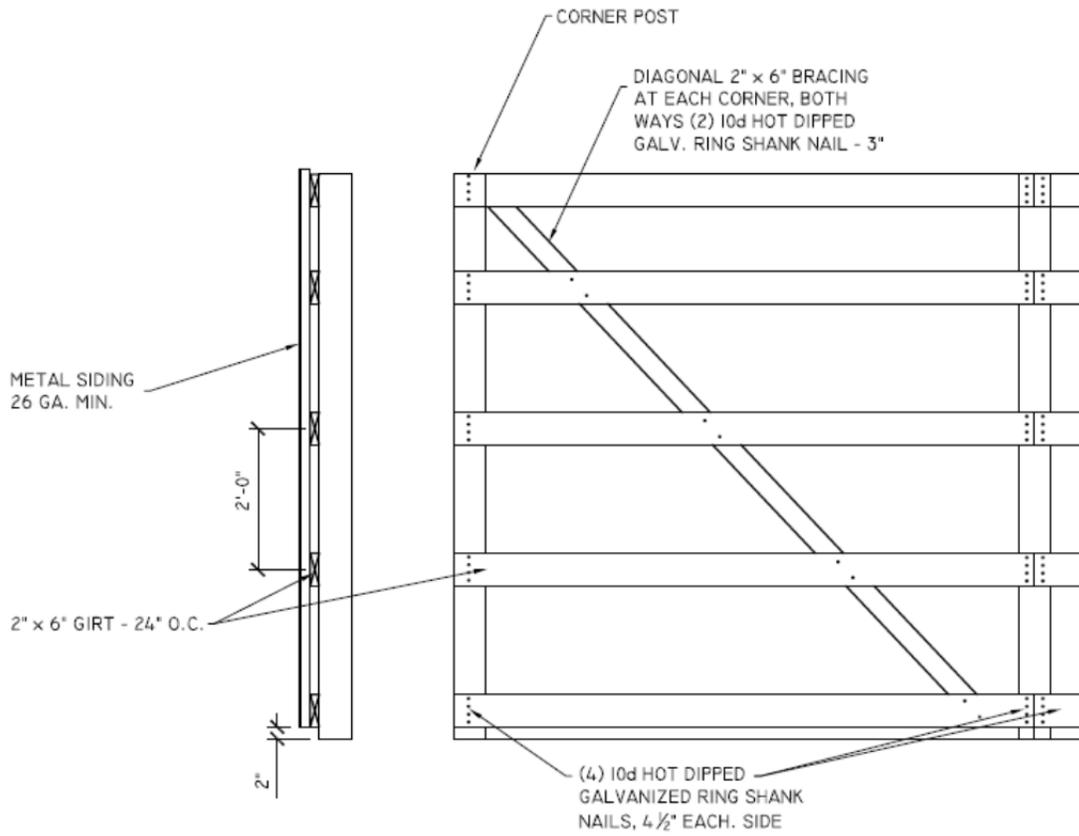
For all OPEN structures, the following bracing shall be used as a guideline

Figure G-1 & G-2

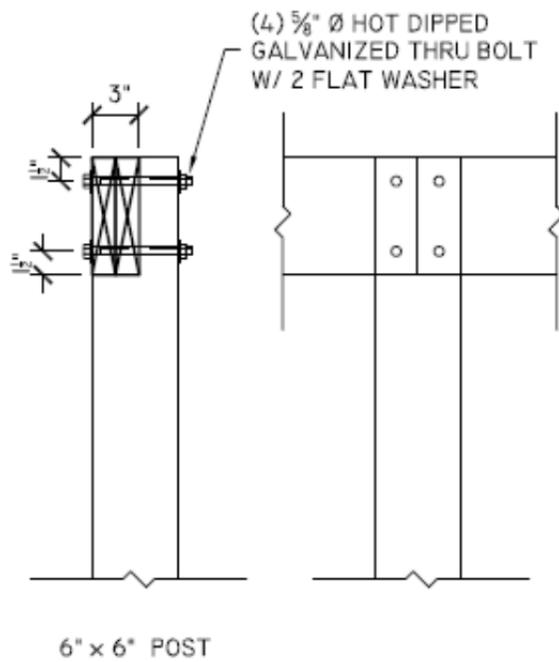
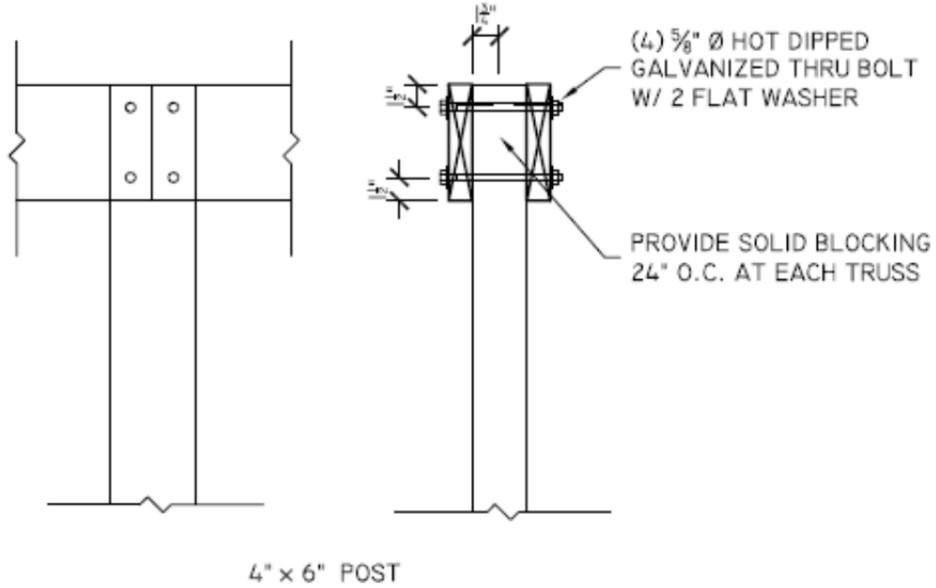


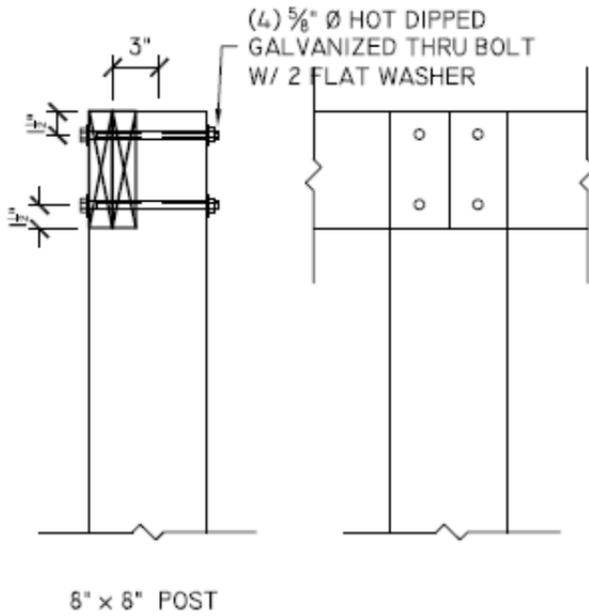
For all PARTIALLY or FULLY ENCLOSED structures, the following shall be used at all enclosed sides.

Figure G-3



Connection to Headers: Note that all fasteners shall be hot dipped galvanized when in contact with pressure treated wood.

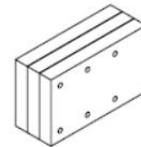




For (2) & (3) Headers, from Step 6, the sections shall be nailed together in the following pattern. 2" from top and bottom.

BUILT UP GIRDERS AND BEAMS

<u>QTY</u>	<u>FASTENER SIZE</u>	
24" O.C. (3) PER SECTION, STAGGARED	3½" x 0.162" (16d COMMON)	
24" O.C. (3) PER SECTION, STAGGARED	3" x 0.148" (10d COMMON)	
24" O.C. (3) PER SECTION, STAGGARED	3" x 0.131" NAIL	
16" O.C. (3) PER SECTION, STAGGARED	¾" x 0.120" NAIL	
16" O.C. (3) PER SECTION, STAGGARED	3" x 0.120" NAIL	



Additional Nailing from 2012 NC Residential Building Code.

TOP OR SOLE PLATE TO STUD (FACE NAIL)

QTY FASTENER SIZE

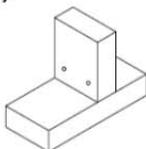
2	3½" x 0.162" (16d COMMON)
3	3" x 0.148" (10d COMMON)
3	3" x 0.131" NAIL
4	¾" x 0.120" NAIL
4	3" x 0.120" NAIL



STUD TO TOP PLATE OR SOLE PLATE (TOE NAIL)

QTY FASTENER SIZE

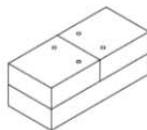
3	3½" x 0.162" (16d COMMON)
4	3" x 0.148" (10d COMMON)
4	3" x 0.131" NAIL
4	¾" x 0.120" NAIL
4	3" x 0.120" NAIL



CAP/TOP PLATE LAPS & INTERSECTIONS

QTY FASTENER SIZE

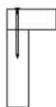
2	3½" x 0.162" (16d COMMON) EA SIDE
3	3" x 0.148" (10d COMMON) EA SIDE
3	3" x 0.131" NAIL - EACH SIDE
3	¾" x 0.120" NAIL - EACH SIDE
3	3" x 0.120" NAIL - EACH SIDE



SOLE PLATE TO JOIST OR BLOCKING AT BRACED PANELS

QTY FASTENER SIZE

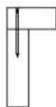
2 PER 16"	3½" x 0.162" (16d COMMON)
3 PER 16"	3" x 0.148" (10d COMMON)
4 PER 16"	3" x 0.131" NAIL
4 PER 16"	¾" x 0.120" NAIL
4 PER 16"	3" x 0.120" NAIL



SOLE PLATE TO JOIST OR BLOCKING

QTY FASTENER SIZE

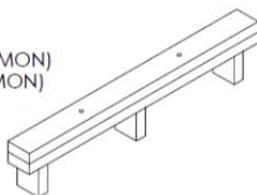
16" O.C.	3½" x 0.162" (16d COMMON)
8" O.C.	3" x 0.148" (10d COMMON)
8" O.C.	3" x 0.131" NAIL
8" O.C.	¾" x 0.120" NAIL
8" O.C.	3" x 0.120" NAIL



DOUBLE TOP PLATE

QTY FASTENER SIZE

16" O.C.	3½" x 0.162" (16d COMMON)
16" O.C.	3" x 0.148" (10d COMMON)
12" O.C.	3" x 0.131" NAIL
12" O.C.	¾" x 0.120" NAIL
12" O.C.	3" x 0.120" NAIL



DOUBLE STUDS

QTY FASTENER SIZE

12" O.C.	3½" x 0.162" (16d COMMON)
12" O.C.	3" x 0.148" (10d COMMON)
8" O.C.	3" x 0.131" NAIL
8" O.C.	¾" x 0.120" NAIL
8" O.C.	3" x 0.120" NAIL



CORNER STUDS

QTY FASTENER SIZE

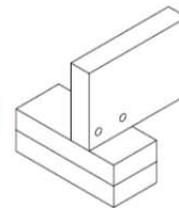
24" O.C.	3½" x 0.162" (16d COMMON)
16" O.C.	3" x 0.148" (10d COMMON)
16" O.C.	3" x 0.131" NAIL
12" O.C.	¾" x 0.120" NAIL
12" O.C.	3" x 0.120" NAIL



CEILING JOIST TO PLATE

QTY FASTENER SIZE

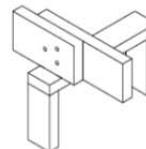
3	3½" x 0.162" (16d COMMON)
4	3" x 0.148" (10d COMMON)
5	3" x 0.131" NAIL
5	¾" x 0.120" NAIL
5	3" x 0.120" NAIL



CEILING JOIST LAPS @ PARTITIONS

QTY FASTENER SIZE

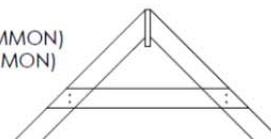
3	3½" x 0.162" (16d COMMON)
4	3" x 0.148" (10d COMMON)
4	3" x 0.131" NAIL
4	¾" x 0.120" NAIL
4	3" x 0.120" NAIL



COLLAR TIE TO RAFTER

QTY FASTENER SIZE

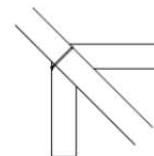
3	3½" x 0.162" (16d COMMON)
3	3" x 0.148" (10d COMMON)
4	3" x 0.131" NAIL
4	¾" x 0.120" NAIL
4	3" x 0.120" NAIL



JACK HIP TO RAFTER, TOE NAILED

QTY FASTENER SIZE

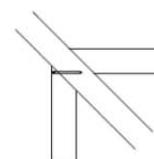
3	3½" x 0.162" (16d COMMON)
3	3" x 0.148" (10d COMMON)
4	3" x 0.131" NAIL
4	¾" x 0.120" NAIL
4	3" x 0.120" NAIL



JACK HIP TO RAFTER, FACE NAILED

QTY FASTENER SIZE

2	3½" x 0.162" (16d COMMON)
3	3" x 0.148" (10d COMMON)
3	3" x 0.131" NAIL
4	¾" x 0.120" NAIL
4	3" x 0.120" NAIL



RAFTER TO PLATE

QTY FASTENER SIZE

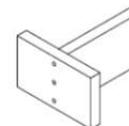
3	3½" x 0.162" (16d COMMON)
3	3" x 0.148" (10d COMMON)
3	3" x 0.131" NAIL
4	¾" x 0.120" NAIL
4	3" x 0.120" NAIL



JOIST TO BAND JOIST

QTY FASTENER SIZE

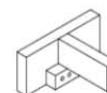
3	3½" x 0.162" (16d COMMON)
5	3" x 0.148" (10d COMMON)
5	3" x 0.131" NAIL
6	¾" x 0.120" NAIL
6	3" x 0.120" NAIL



LEDGER STRIP

QTY FASTENER SIZE

3	3½" x 0.162" (16d COMMON)
4	3" x 0.148" (10d COMMON)
4	3" x 0.131" NAIL
4	¾" x 0.120" NAIL
4	3" x 0.120" NAIL



REFERENCES

ANSI/AWC NDS-2012. *National Design Specification for Wood Construction*. American Wood Council

ASAE EP486.2 OCT2012ED. *Shallow Post & Pier Foundation Design*. 2012 ed. St. Joseph, Mich.: American Society of Agricultural and Biological Engineers

ASCE 7-10. *Minimum Design Loads for Buildings and Other Structures*. USA American Society of Civil Engineers

SFPA *Pressure-Treated Southern Pine, 2010 Edition*. Kenner, LA: Southern Forest Products Association