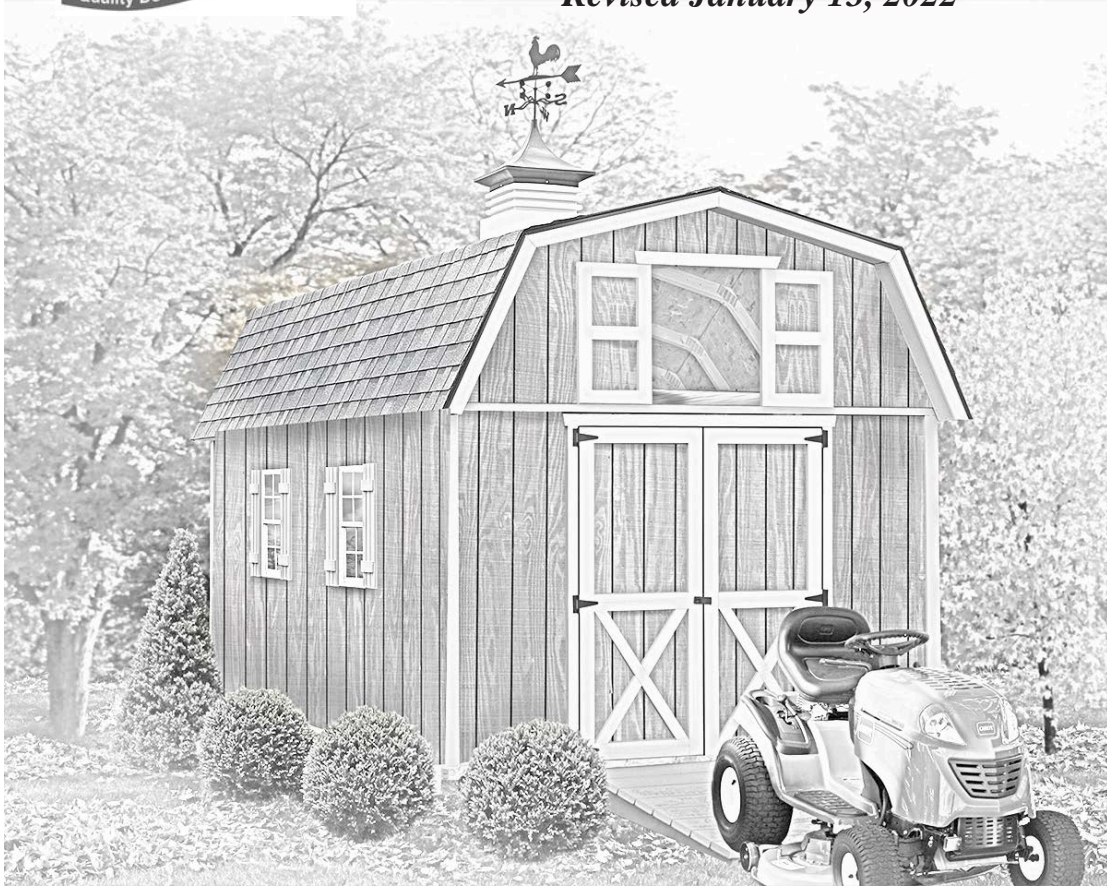




# Best Barns USA Assembly Book

*Revised January 13, 2022*



**the Woodville-R**

**10' x 16'**

**Manufactured by Reynolds Building Systems, Inc.**

**205 Arlington Drive Greenville, PA 16125**

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## IMPORTANT INFORMATION ABOUT YOUR SHED KIT

Download the most current instruction book at [www.barnkits.com](http://www.barnkits.com); use the "manuals" link on the menu bar and then select your building kit and size.

The foundation size should measure 10'-0" wide by 15'-9" long. **Do Not** make the foundation larger than the building size. The siding should project beyond the foundation for water to expel properly from the sidewalls.

Read the instructions before starting the assembly of the building. If you have any questions about assembling the kit, call 800-245-1577; business hours (8:00-5:00 ET) Monday thru Friday. After business hours call 724-866-HELP (4357) or email to [help@barnkits.com](mailto:help@barnkits.com).

The material that is included in our kit is listed on the back page. The optional floor package, if purchased, will be supplied by a local lumber supplier.

Our kit does not include the shingles, the quantity needed is listed at the end of the book. The siding is primed. You will need to apply a finish coat using latex acrylic paint.

Some of the framing lumber was used in the shipping pallet. Unpack the material from the pallets, then unscrew the OSB sheathing, it will be used for the loft flooring. Unscrew the 2x4s from the shipping pallet. This material will be used for wall bracing and wall plates. The bit for the screws is packed in the hardware bag.

Stacking the boards, according to size, will make them easier to find when needed. Some boards may have colored ends.

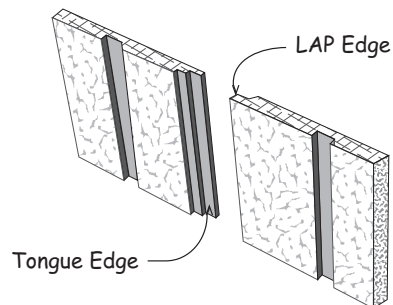
Before you begin construction, be sure to study this assembly manual. Also, obtain a building permit and check all pertinent building code regulations.

Thank you for your purchase.

Bill & Linda Rinella, owners

The siding is made in 4x8 sheets with grooves cut into the face, the long edge is beveled so that the siding overlays where they butt.

To identify which edge we want you to use, we will refer to the edge as either the 'LAP' Edge or the Tongue Edge. Nail siding with 6d galvanized box nails spaced 8" apart.



### Tool List

- |  |  |
|--|--|
| <input type="checkbox"/> Hammer & Phillips Screwdriver | <input type="checkbox"/> Power Drill/Screwdriver |
| <input type="checkbox"/> Framing Square & Level        | <input type="checkbox"/> Measuring Tape          |
| <input type="checkbox"/> Hand or Circular Saw          | <input type="checkbox"/> 2 - 8' Step Ladders     |

**Always wear safety glasses when cutting or nailing!**

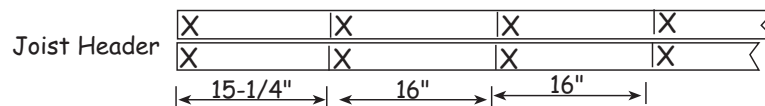
## Constructing Details for Deluxe Floor System

*Deluxe floors include 4x4 runners, standard floors do not*

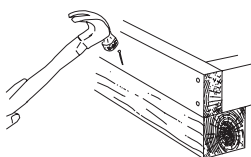
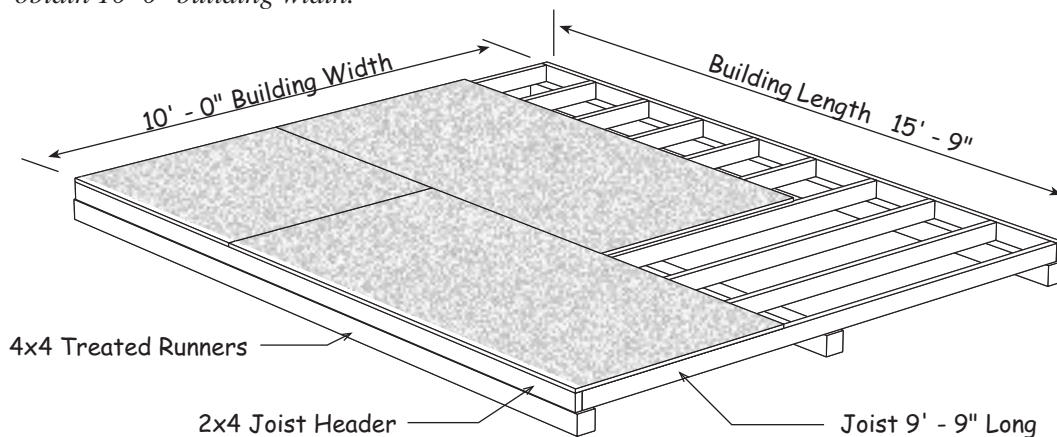
Foundation size is 10'-0" x 15'-9". Check local building codes in your area, the construction may have to change. For a concrete slab, install sill sealer as a moisture barrier between the concrete and the wall plates. Foam sill sealer can be purchased at home centers in rolls 3-1/2" or wider.

1. Cut 2x4-16' joist headers to 15' - 9".

Layout for 16" on center joist spacing. 'X' marks where floor joist will be placed.



2. Cut 2x4-10' floor joist to 9'-9". *Treated lumber may be thicker than 1-1/2". Take this into account when cutting the length of floor joists. Shorten joist measurements if necessary to obtain 10'-0" building width.*



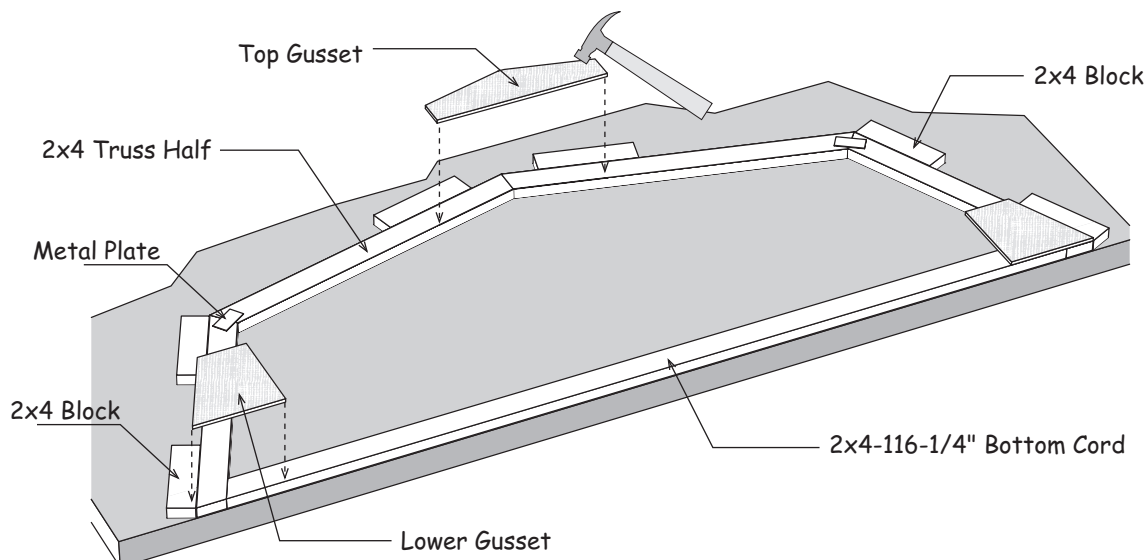
Nail the 2x4s to the 4x4 runners to keep the 2x4 frame from moving.

It is important that the floor be level and square. Before nailing the flooring, measure the floor diagonally (corner to corner); then measure the opposite corners. These measurements will be the same when the floor is square.

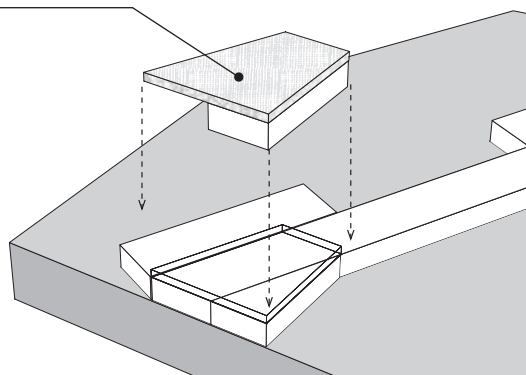
| Material Description  | 10' x 16' shed |
|-----------------------|----------------|
| 2x4 Joist Headers     | 2 pcs. 16'     |
| 2x4 Floor Joist       | 13 pcs. 10'    |
| 4x4 Treated Runners   | 6 pcs. 8'      |
| Flooring 5/8" or 3/4" | 5 pcs. 4x8     |
| Screw Floor Nails     | 2 lb. 8d       |
| Galv. Box Nails       | 1 lb. 16d      |

## Step 1 Assemble Trusses

1. Position (2) two truss halves together so that a 116-1/4" long 2x4 bottom cord may be placed between them.
2. Hold truss parts in place by temporarily screwing 2x4 blocks to the floor. There are short 2x4 blocks supplied in the kit for this purpose. Use 2-1/2" wood screws.
3. Secure the tops together with a wood gusset. Nail the gusset with (16) sixteen 6d common nails. Space nails evenly.
4. Secure the truss bottom legs to the bottom cord with wood gussets. **Note:** You may have to spread the truss bottom to fit the bottom 2x4. Use 12 nails per gusset. Space nails evenly.
5. Assemble (5) five more trusses.
6. Turn trusses over and apply wood gussets to the opposite side.



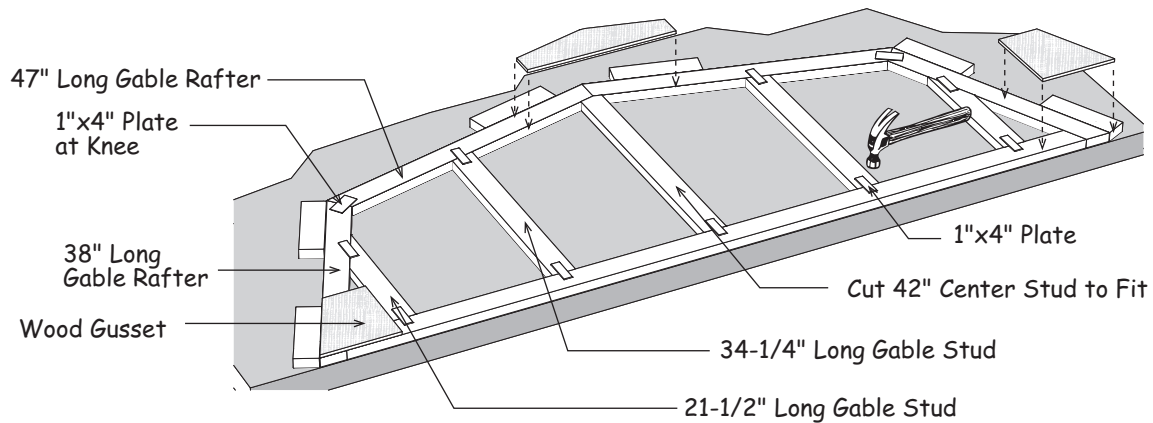
7. Assemble another truss without a bottom cord. Locate wood gussets with a 2x4 block attached to one side.
8. Attach this block/gusset to the bottom of each truss leg. Secure to leg with 6d common nails.
9. Turn truss over and apply gussets.



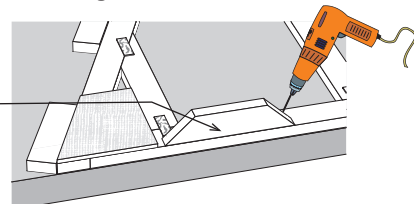
Do Not remove blocks from floor until **Step 2** is completed.

## Step 2 Assemble Rear Gable

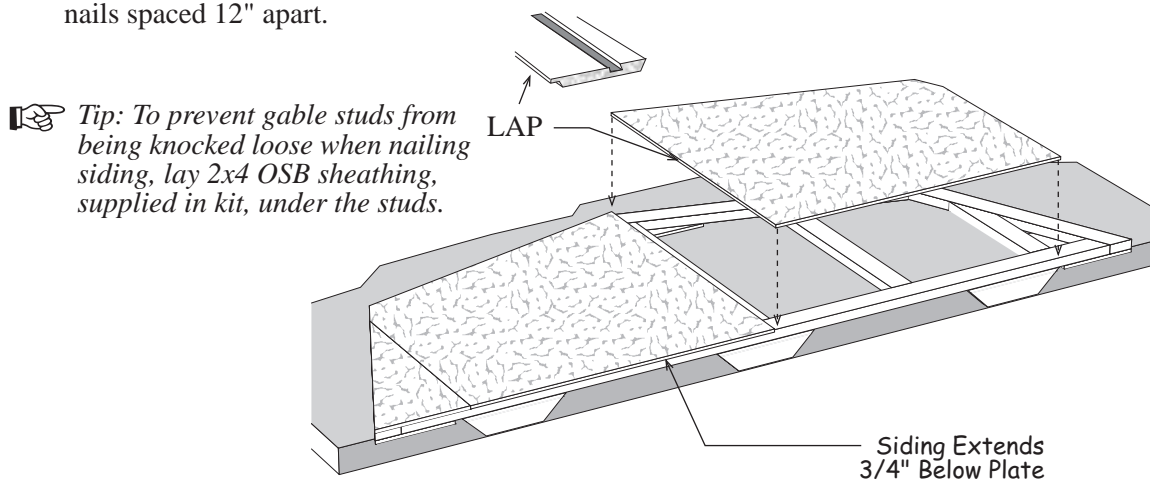
1. **IMPORTANT: Do no use truss halves to make gables.** Place (2) two 47" long, (2) two 38" long 2x4 gable rafters and a 116-1/4" bottom cord in the truss jig. Secure at knee with 1"x4" drive-on plates. Secure bottom cord with gussets.
2. Select a 42" long 2x4 center stud and cut to fit between ridge and bottom cord.
3. Install (2) two 21-1/2" and (2) two 34-1/4" with angle cut on one end. Secure 2x4 gable studs to the truss with (9) nine 1"x4" metal plates at top and bottom.



4. Screw (3) three 16" long 2x4 blocks flush with bottom of the 2x4 bottom cord. One on each end and one in the center. Use (2) two 2-1/2" screws.

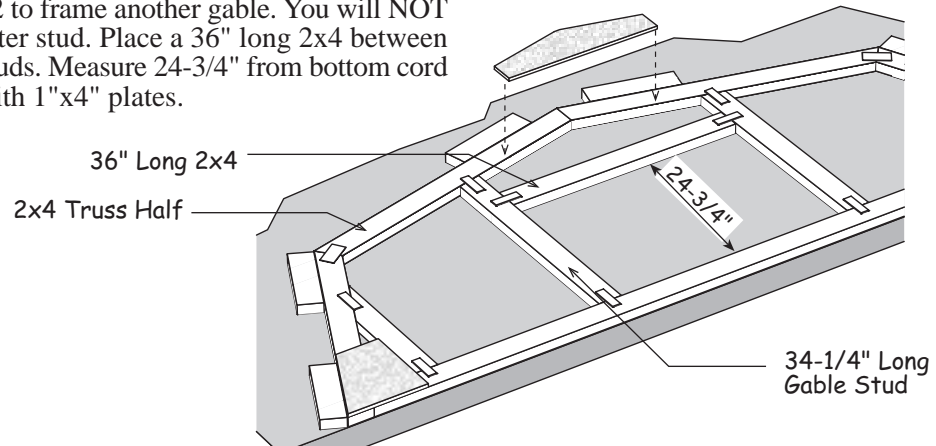



5. Turn the gable over. Locate pre-cut gable siding. Starting from left install the siding extending 3/4" below the bottom 2x4. Insure the siding does not extend above the top frame. Use 6d galv. nails spaced 12" apart.



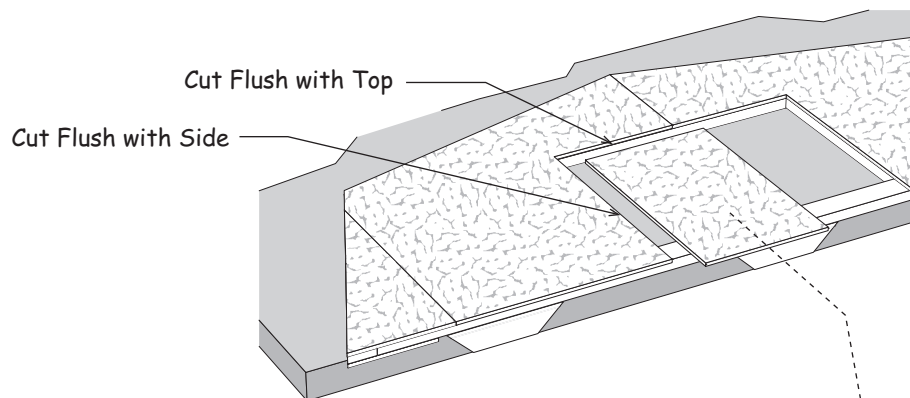
### Step 3 Assemble Front Gable

1. Repeat Step 2 to frame another gable. You will NOT use a 42" center stud. Place a 36" long 2x4 between the 34-1/4" studs. Measure 24-3/4" from bottom cord and secure with 1"x4" plates.

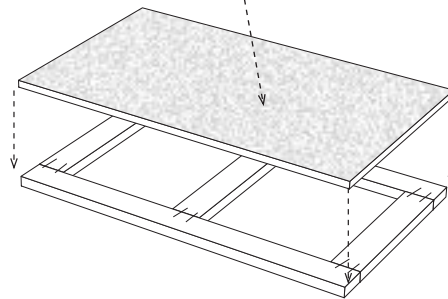


 *If you don't need loft access from the outside, attach loft door frames to the gable to create a decorative look and weather tight storage area.*

2. Turn the gable over. Lay out the first (2) two pieces of siding on frame. **Important: Do not nail to frame.** Mark and cut so siding is flush with top and left side of opening. Cut to bottom of siding below gable plate. Nail first two pieces of siding to frame. Lay out next siding panel, do not nail, and repeat cut for right side door opening. Nail last two pieces of siding to frame.

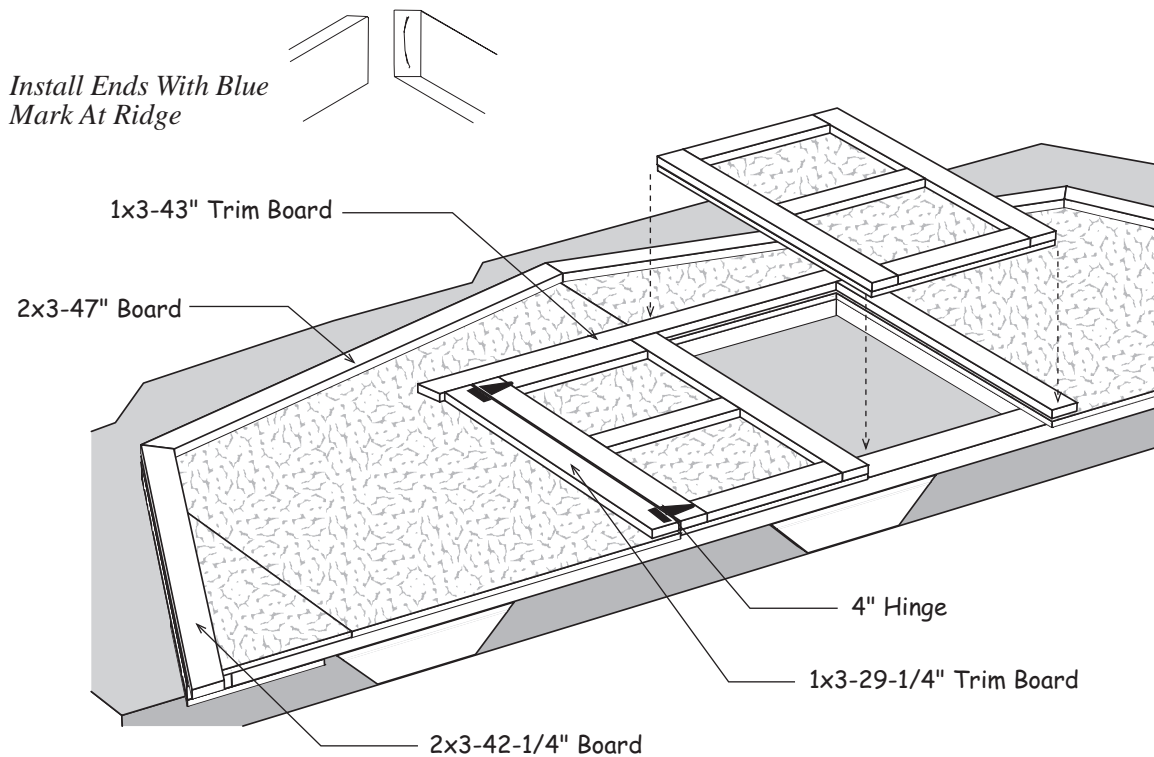


3. Assemble the loft doors. The loft door frames are temporarily held together with corrugated fasteners, this is the back side of the door frame. Place the doors on level surface, face side down. Cut the siding from above step to the size of the door frame. Secure the siding panel to the frame with 1" screws provided.



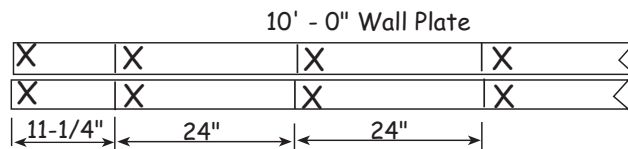
## Step 4 Install Front Gable Overhang and Front Loft Doors

1. Apply 47" long 2x3 boards to the front gable. These boards have a blue marking on one end. Install this end at the top. Install flush with the top of the gable frame. Use 10d sinkers
2. Install a 42-1/4" long 2x3 at the sides of the gable, flush with the frame. Board will extend below siding.
3. Install 29-1/4" long 1x3 trim boards on each side of the loft door opening. Install a 43" long trim board across the top.
4. Install loft doors using 4" hinges and 1-1/4" long hinge screws. The screws have a square head. The bit is packed with the screws. Install barrel bolts to the inside top of the doors to secure doors when closed. When door is closed mark where bolt will hit 2x4 gable frame. You will need to drill a 1/4" hole into the underside of the 2x4.



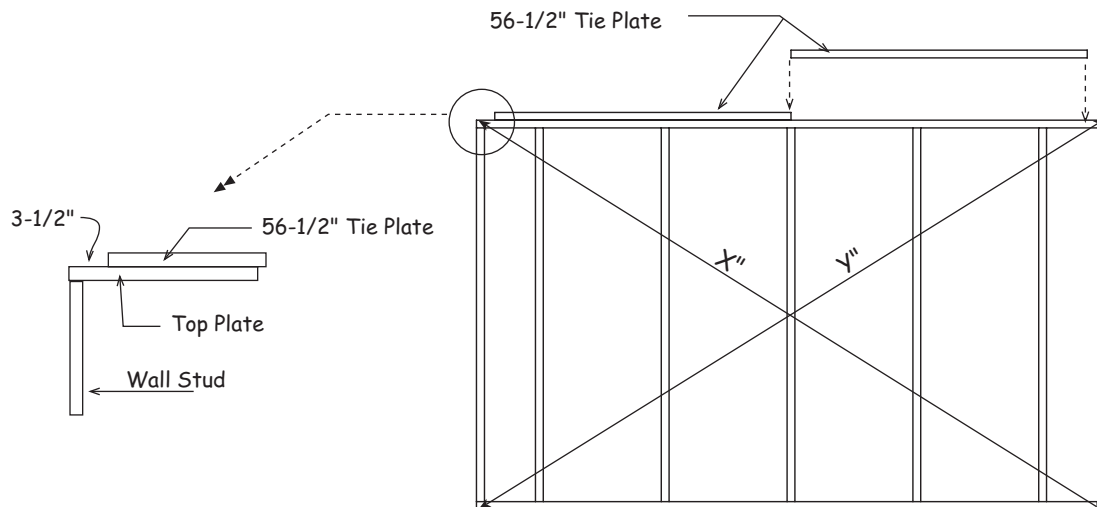
## Step 5 Layout Plates for Back Wall

Position (2) two 2x4-10' boards together and indicate with 'X' marks, where the wall studs will be located.

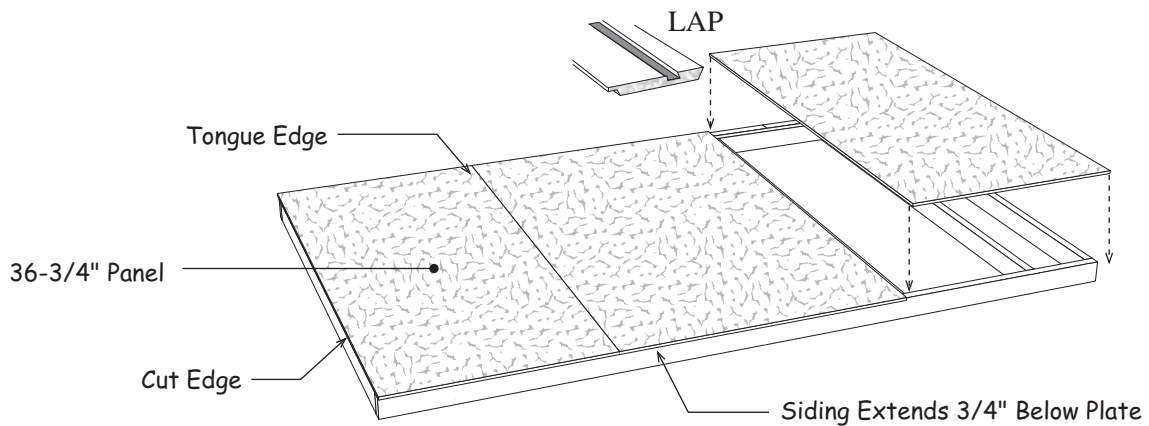


## Step 6 Assemble Back Wall

1. Install 72" wall studs between the top and bottom plates. Nail studs to plate using (2) two 10d sinkers on each end of the stud.
2. Install (2) two 56-1/2" long 2x4 as tie plates over the top plate. The 2x4s will be 3-1/2" short of the end of the wall frame.



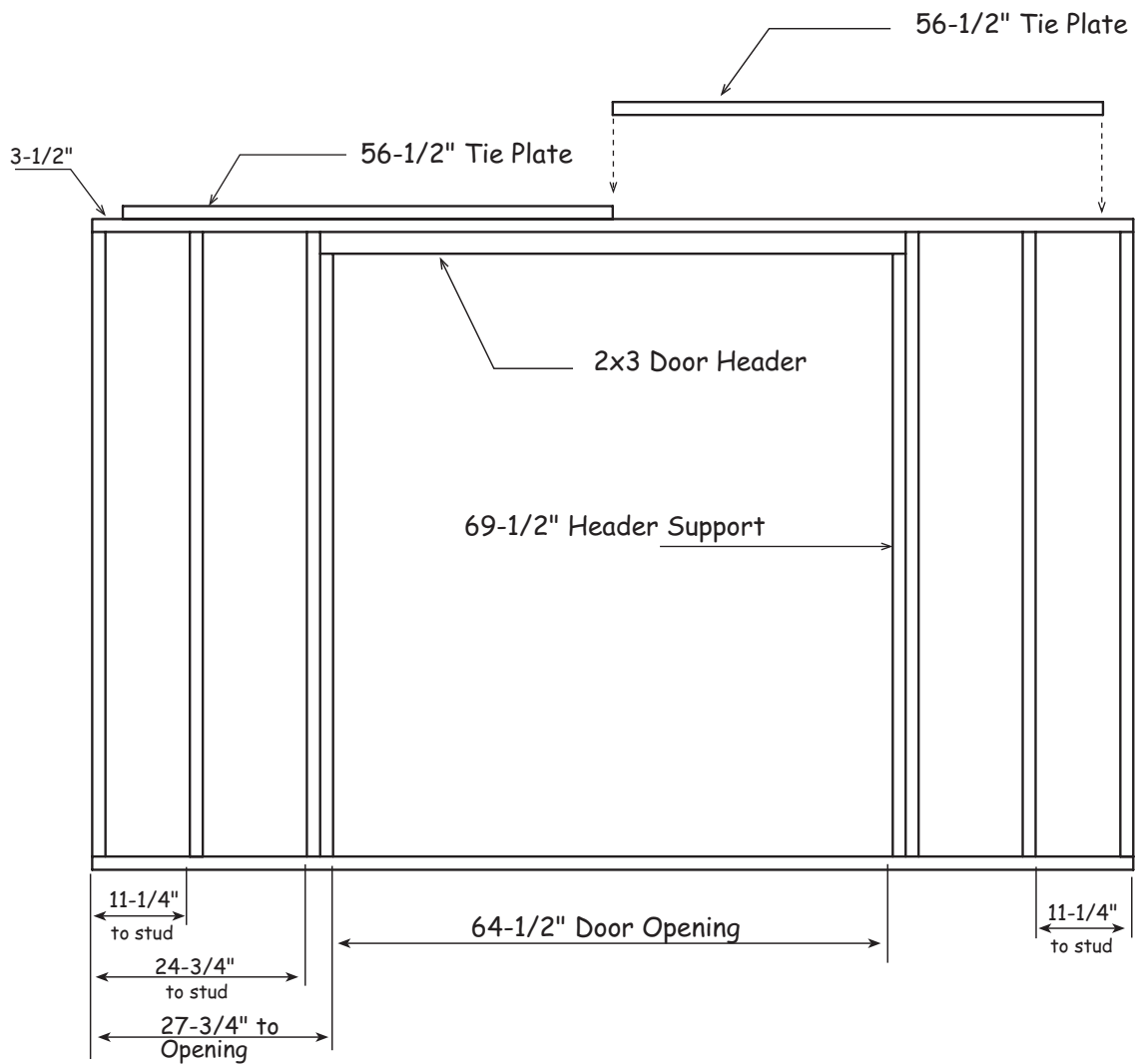
3. Square wall frame. *Measure diagonally (corner to corner).* The two measurements (x" and y") will be the same when the wall is square.
4. Locate a 36-3/4" x 77-1/4" siding panel with the 'Tongue' edge. Install the siding panel on the left corner, with the 'cut edge' flush with the end of the wall and flush with the top of the 2x4 tie plate. The siding should extend below the bottom plate. Use the 6d galv. nails spaced 12" on center.
5. Install a 48-3/4" x 77-1/4" siding panel in the center of the wall frame.
6. Install a 36" x 77-1-4" panel with the 'LAP' edge last.





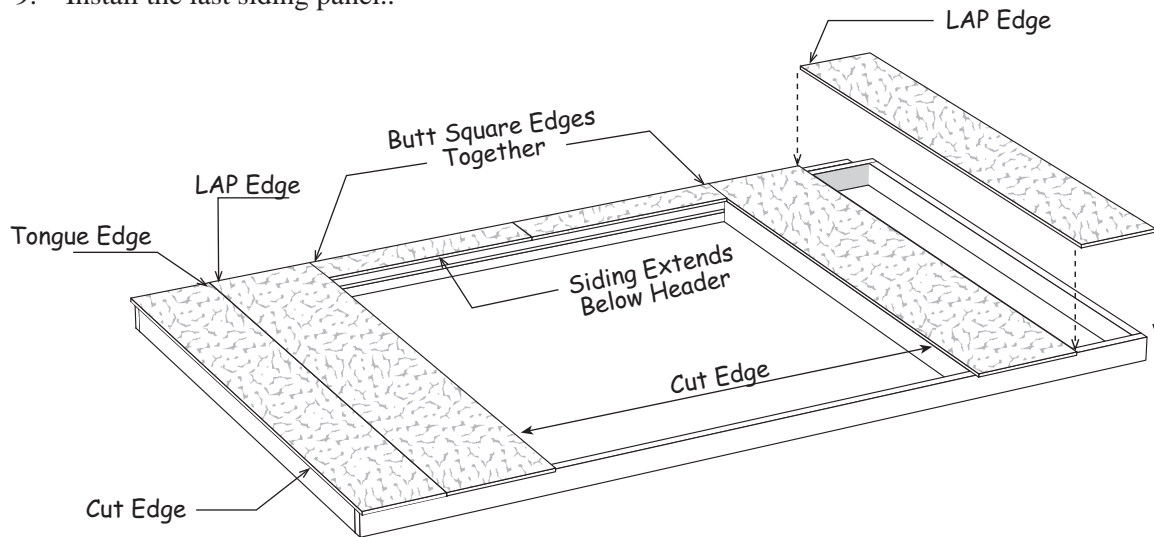
## Step 7 Assemble Front Wall Panels

1. Install (6) six 72" wall studs between 2x4 - 10' top and bottom plates.
2. Cut (2) two 2x4-6' boards to 69-1/2" in length. Install a pre-built 2x3 door header and the 2x4s as header support under the door header.
3. Install (2) two 56-1/2" long 2x4 as tie plates over the top plate. The 2x4s will be 3-1/2" short of the end of the wall frame.
4. Square wall frame.



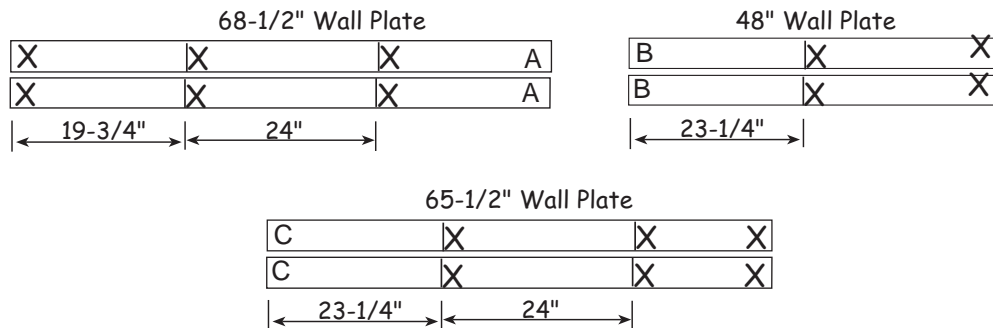
## Step 7 Assemble Front Wall Continued

5. Locate a 16" x 77-1/4" siding panel that has a 'LAP' edge. Position the 'cut' edge flush with the left side of the door opening. Do not nail the LAP edge until the other siding is applied.
6. Locate the 12-3/4" wide siding with a 'tongue edge' and install on the left end of the front wall.
7. Install (2) two 6" siding panels over the door opening, flush with the top plate.
8. Install another 16" wide siding panel with the 'cut' edge flush with the side of the door opening.
9. Install the last siding panel..



## Step 8A Assemble Side Walls

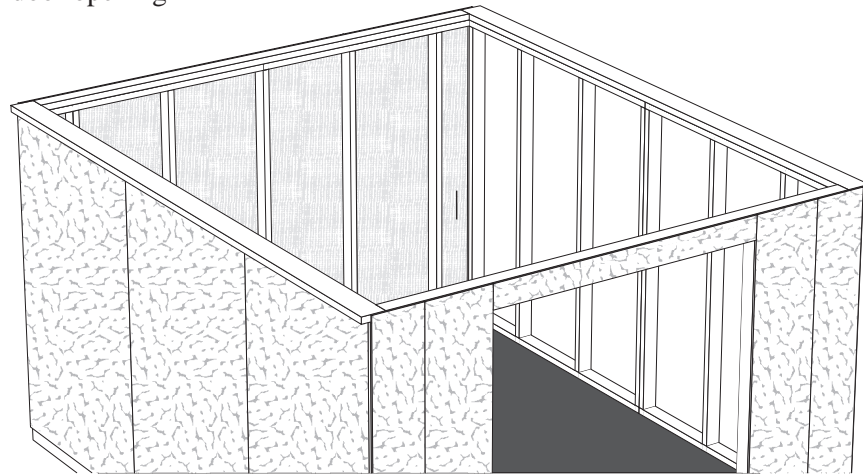
1. Disassemble the shipping pallets. Save the OSB sheathing for the loft floor. Cut (2) two of the 2x4s into (2) two 48" long 2x4s.
2. Position 68-1/2", 48", and 65-1/2" long 2x4 boards together and mark where the wall studs will be located. Mark the ends that will butt together with the letters 'A', 'B' and 'C'.





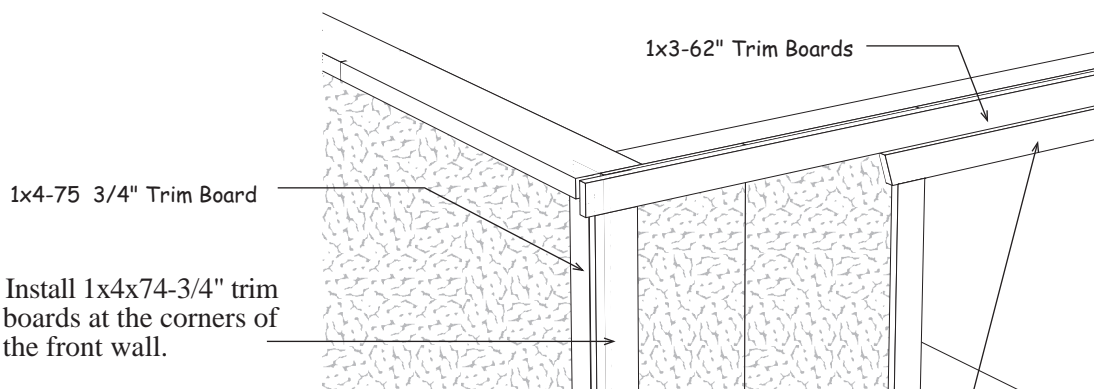
## Step 9 Set Lower Walls

1. Secure wall panels together at the corners. Use (4) four 10d coated nails per corner. Nail wall panels to the floor. Nail through the bottom plate. Space 10d sinkers 24" apart. Use 2x4s from the shopping pallet to brace the sidewalls.
2. Cut the 2x4 from door opening



## Step 10 Install Trim

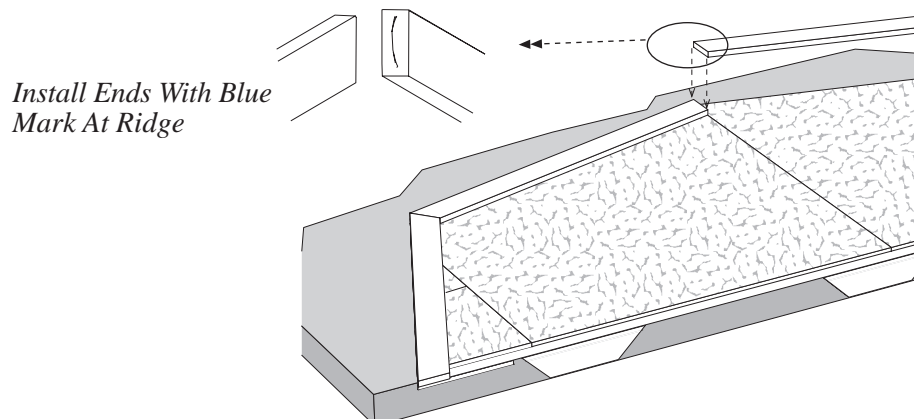
1. Install (2) two 1x3-62" long trim boards flush with the top of the front wall. Use 6d galv. nails.
2. Install 1x4-75 3/4" trim boards at the front corners of the sidewall. Install the trim flush with siding on the front wall.



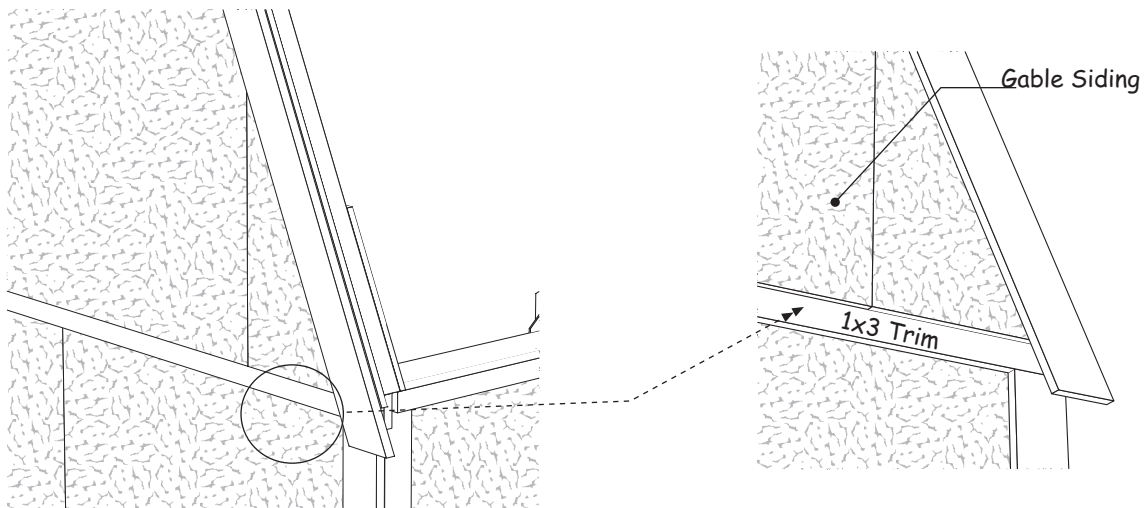
3. Install 1x4x74-3/4" trim boards at the corners of the front wall.
4. Install 1x4x72" boards along each side of the door opening. Tack these boards with a couple nails; you may want to move the trim later when you install the doors.
5. Install a 1x3x72" board over the door opening.
6. Install trim on the back of the building.

## Step 11 Install Rear Gable

1. Apply 1x4 trim to gable. Install a 47-1/2" long 1x4 at the top of the gable. These boards have a blue marking on one end. Install this end at the peak. Install the 1x4 gable trim extending 1/2" above the siding on the gable. When installed later, the roof sheathing will be flush with the top of the trim.
2. Install a 43" long 1x4 at the sides of the gable, 1/2" above the siding on the gable.

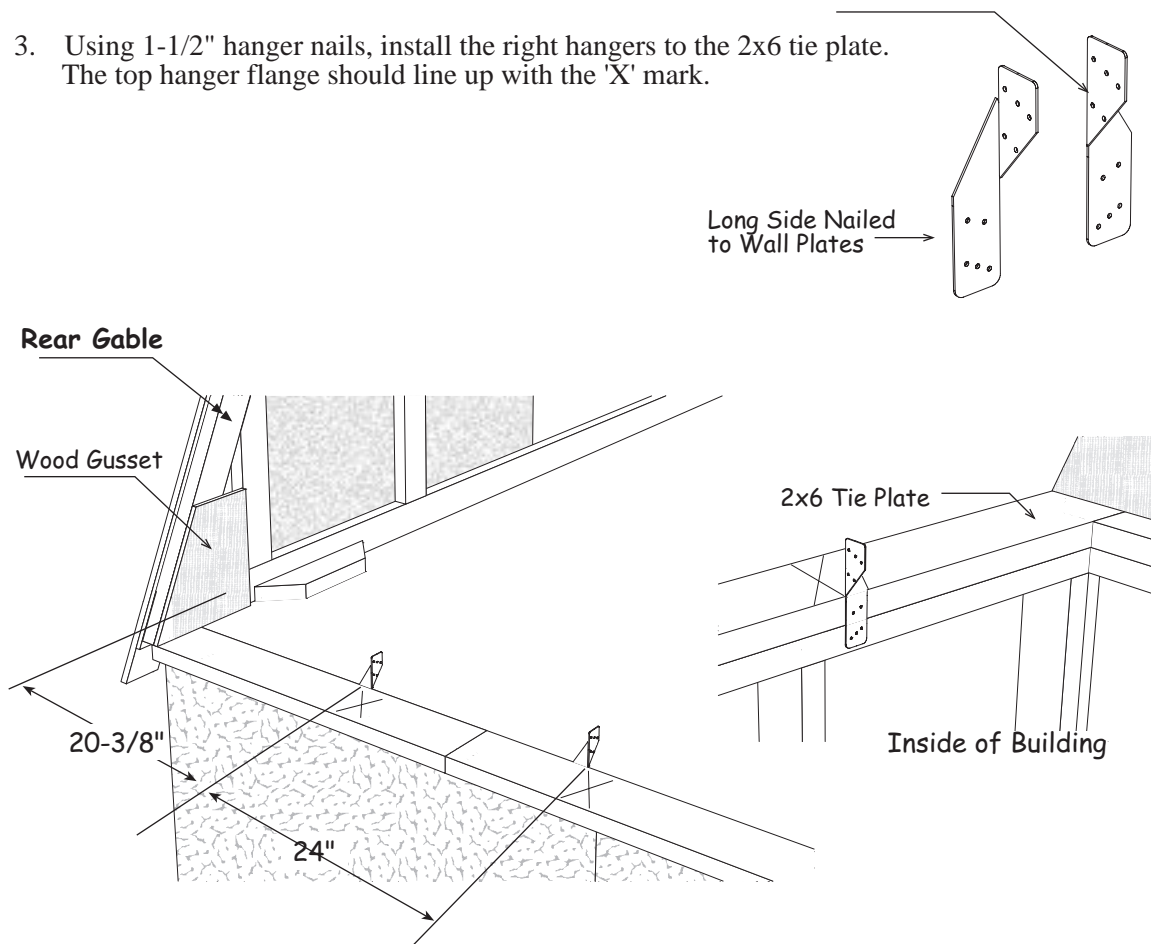


3. Install the rear gable on the back wall. The gable siding will extend over the 1x3 trim on the lower wall. NOT behind the trim! Secure gable to wall by nailing through the gable blocks with 10d sinkers. Nail siding along the 1x3 trim board with 6d galv. nails.



## Step 12 Layout for Truss Spacing

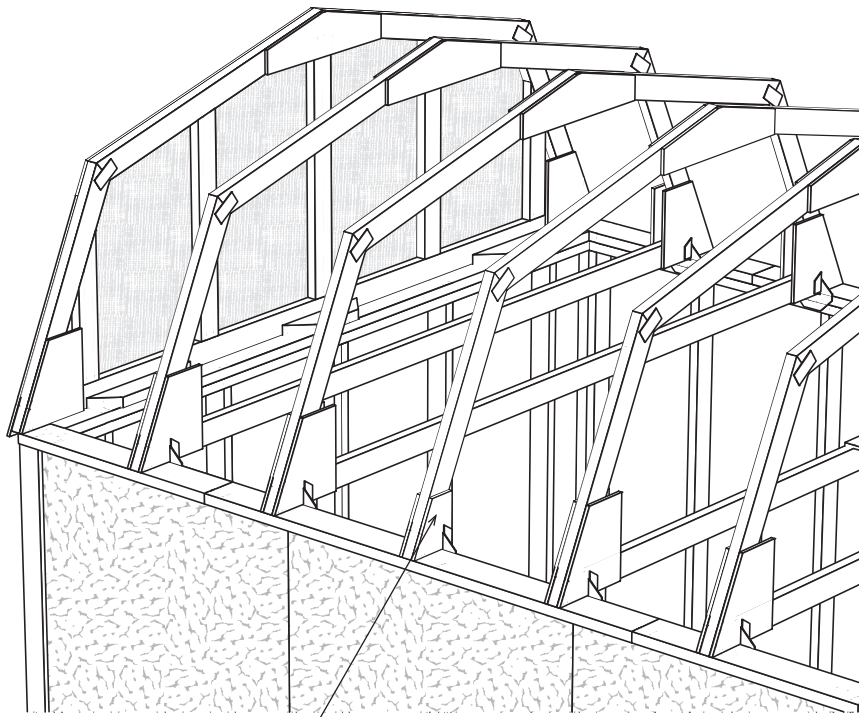
1. Layout the truss spacing on the left sidewall, facing building. Start at the back of the building. Measure from the inside face of the wood gusset when marking the location of the first truss.
2. Locate the truss hangers, there are left and right hangers. Select the right hangers.
3. Using 1-1/2" hanger nails, install the right hangers to the 2x6 tie plate. The top hanger flange should line up with the 'X' mark.



**Important:** When marking the opposite wall, use the left hangers and place the 'X' mark on the same side of the line so your trusses are parallel when they are installed.

## Step 13 Install Trusses

1. Install the trusses over the 'X' marks. Install hanger to the opposite side of the trusses. Secure truss to metal hangers using 1-1/2" hanger nails.

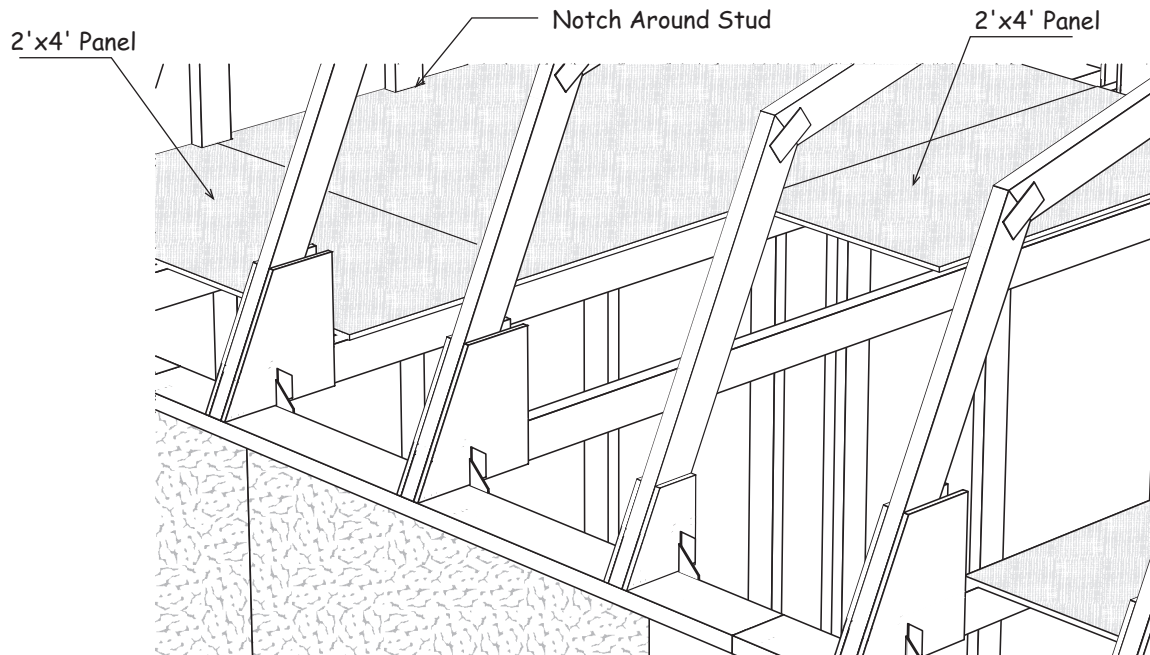


Note: The center truss will not have a bottom cord.

2. Install front gable.

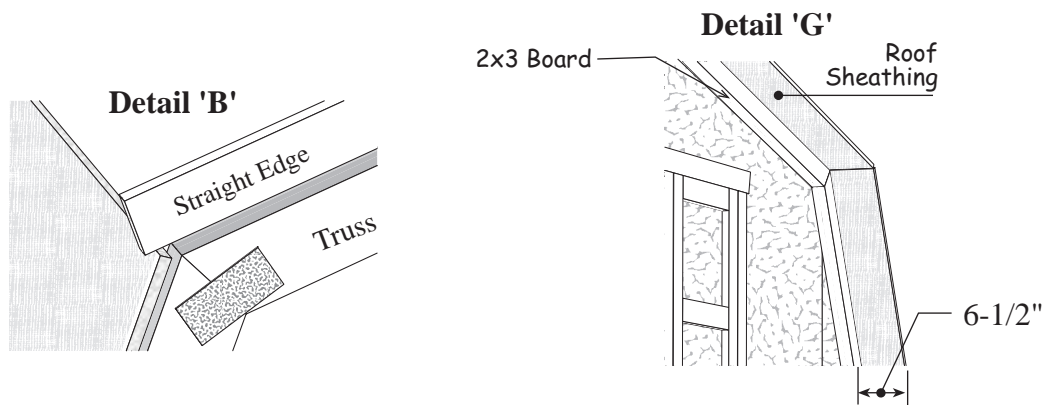
## Step 14 Install Loft Floor

1. Install a 4' x 4' OSB flooring panel between the siding on the rear gable and the center of the 2nd truss. Notch the panel around the studs on the gable and cut the width to fit on the center of the 2x4 truss bottom. Note: Some OSB panels may be attached to the shipping pallet. Secure floor with 6d common nails spaced 12" apart.
2. Cut and install 2' x 4' OSB panels on each side of the center panel.



3. Install (2) two 2'x4' pieces as the 2nd row of flooring.
4. Install OSB flooring at the front of the building.

## Step 15 Install Roof Sheathing - Supplemental Details




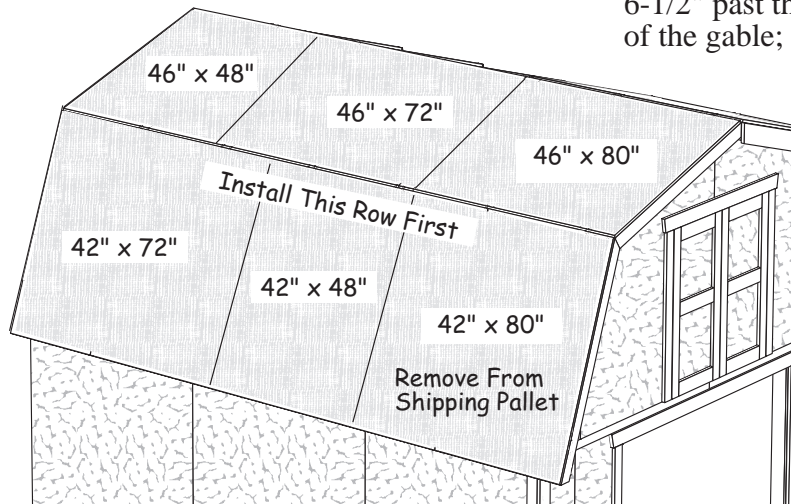


## Step 15 Install Roof Sheathing

Install roof sheathing on the steep side of the roof. Use a straight edge to align the top of the sheathing with the top of the truss; see **Detail 'B'**. Make sure the trusses are plumb and the roof sheathing meets the center of the truss. Use 6d common nails spaced 8" apart.

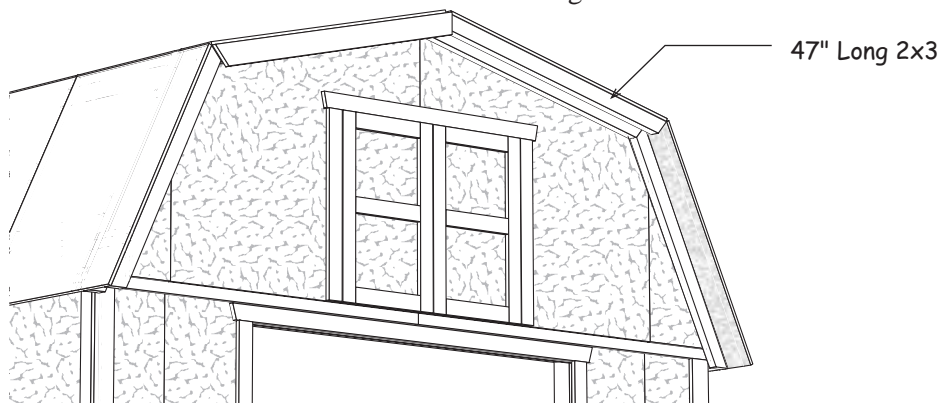
The top roof sheathing will not extend to the ridge. This will allow an opening for air ventilation when you install a ridge vent.

 **Important:** Make sure the gable is plumb and the roof sheathing extends 6-1/2" past the 2x3s along the face of the gable; see **Detail 'G'**

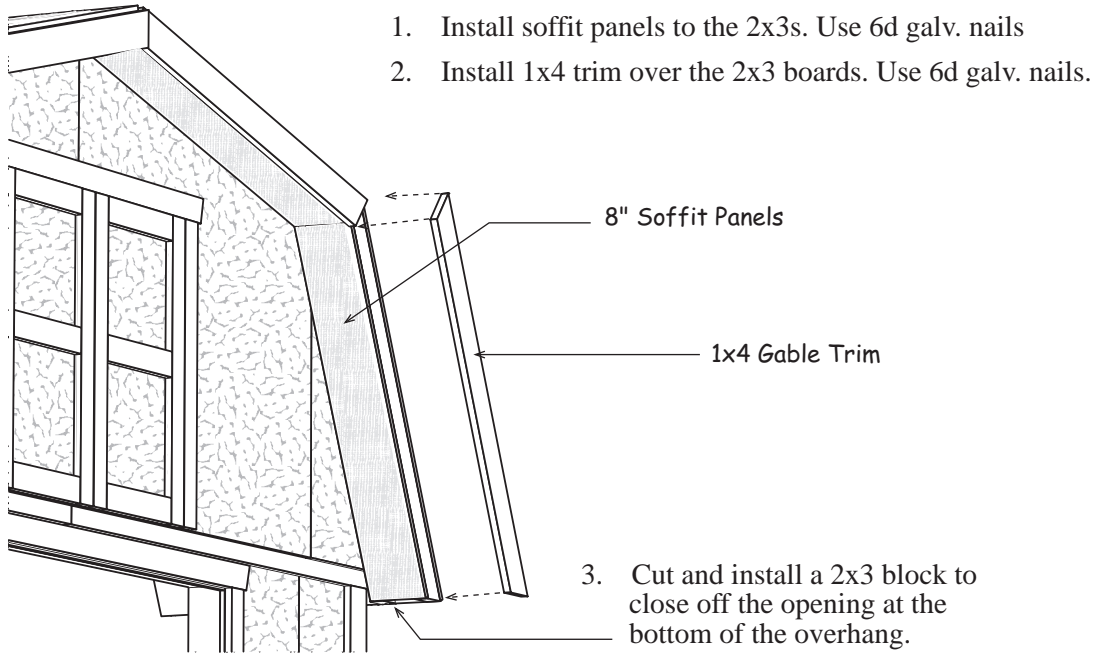


## Step 16 Install Gable Overhang

1. While a helper holds the 47" long 2x3s against the front edge of the roof sheathing. Screw the sheathing to the 2x3s with 1-1/2" long screws.
2. Install the 42-1/4" 2x3s on the side roof sheathing in the same manner.



## Step 17 Install Gable Soffit and Trim



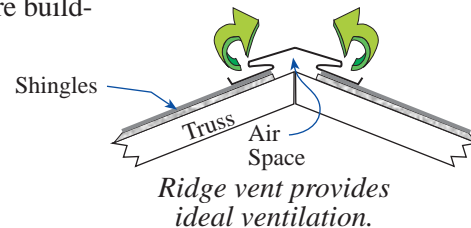
## Install Shingles - not included in kit

Install felt paper and metal roof edge the perimeter of the building. If you are not installing shingles at this time, you can purchase felt paper to protect the sheathing. Install the felt paper before you install the metal roof edge.

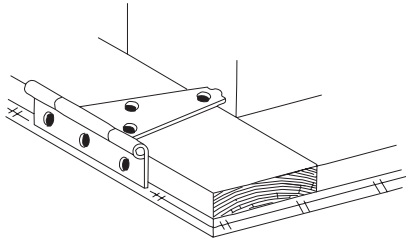
Install shingles according to the instructions on the wrapper. Additional information and tutorials can be found on various online sources.

**Building Tip:** Install ridge vent in lieu of shingles caps. Ridge vent provides ideal ventilation, preventing heat or moisture build-up from damaging your building or its contents.

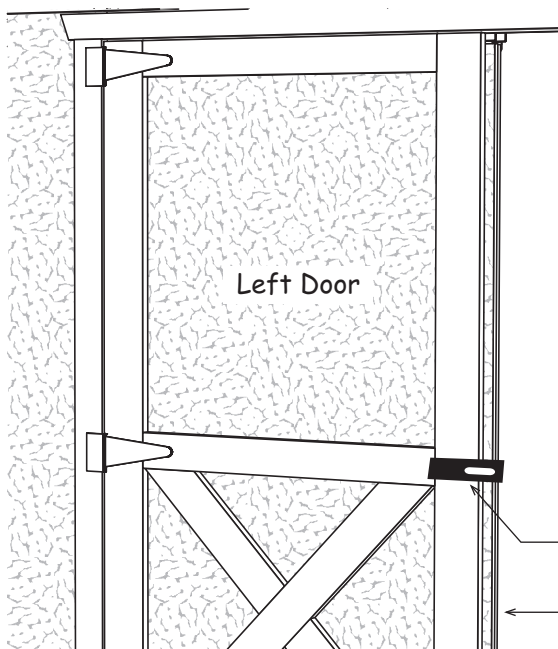
| Material Description | Building Length |         |
|----------------------|-----------------|---------|
|                      | 10'x12'         | 10'x16' |
| Roof Shingles        | 7 bdl.          | 10 bdl. |
| Roof 'drip' Edge     | 6 pcs.          | 7 pcs.  |



## Step 18 Install Doors & Hardware



1. Lay the left door with the trim facing up. The siding on the left door extends past the door trim. See detail below.
2. Install 5" hinges to the left side of the door frame. To position the hinge properly, hold the rectangular plate against the frame. Use 1-3/4" black screws.
3. Install hinges to the right side of the other door.



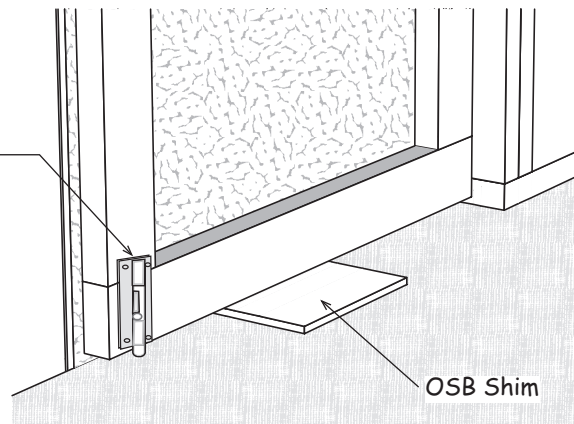
4. Before you fasten the hinges to the door trim, temporarily prop the doors in the opening. Leave a space at the top of the doors and between the doors and the side trim to allow room for the doors to expand when they absorb moisture.

If your door opening is out of square, the space around the doors will not be even. You can remove and reposition the side trim to make allowances for this. The side trim does not have to be flush with the frame of the door opening. You can move the trim in or out to make the door spacing equal.

5. Install hinges to trim with 2" screws.

Barrel Bolt on the back of left door

6. Install a barrel bolt on the lower back of the door to secure this door in place when closed. You will need to drill a hole for the round shaft to drop into.
7. Install another barrel bolt at the top of the door.



### Meadowbrook and Woodville 10'x 16' Barn kit

| Qty. | <i>2x4 &amp; 2x6 Framing</i>                  | Size        | Qty.                                       | <i>Trim</i>                                    | Size              |
|------|---|-------------|--|--|-------------------|
| 4    | Wall Plates                                   | 120 "       | 4  | 1x4 Gable Trim                                 | 47 1/2"           |
| 8    | Truss - Bottom Cords                          | 116 1/4"    | 4  | 1x4 Gable Trim                                 | 43 "              |
| 8    | 2x4 Boards Attached to Pallet                 | 80 "        | 4  | 1x4 Corner Trim                                | 75 3/4"           |
| 37   | Wall Studs black ends                         | 72 "        | 4  | 1x4 Corner Trim                                | 74 3/4"           |
| 4    | Wall Plates                                   | 68 1/2"     | 2  | 1x4 Door Trim                                  | 72 "              |
| 4    | Wall Plates                                   | 65 1/2"     | 1  | 1x3 Top Door Trim                              | 72 "              |
| 4    | Wall Plates                                   | 56 1/2"     | 4  | 1x3 Lower Wall Trim                            | 62 "              |
| 4    | Gable Framing                                 | 47 "        | 2  | 1x3 Loft Door Trim                             | 29 "              |
| 4    | Gable Framing                                 | 38 "        | 1  | 1x3 Loft Door Trim                             | 42 3/4"           |
| 1    | Gable Studs & Framing                         | 36 "        | <b><i>Exterior Siding &amp; Soffit</i></b> |  |                   |
| 1    | Gable Studs & Framing                         | 42          | 3  | 48" x 77-1/4"                                  | 2 12" x 77-1/4"   |
| 4    | Gable Studs & Framing                         | 34 1/4"     | 2  | 36" x 77-1/4"                                  | 6 48" x 75-3/4"   |
| 4    | Gable Studs & Framing                         | 21 1/2"     | 2  | 16" x 77-1/4"                                  | 2 6" x 32-1/4"    |
|      |   |             | 4  | Siding for Roof Gables                         | 48" x 48"         |
| 6    | Gable Nailing Blocks                          | 15 3/4"     | 4  | Siding for Roof Gables                         | 16" x 30"         |
| 2    | 2x6 Tie Plates for Sidewalls                  | 48 "        | 2  | Siding For Door Header                         | 6" x 32-3/4"      |
| 4    | 2x6 Tie Plates for Sidewalls                  | 70 1/2"     | 4  | 8" x 48" Front Soffit Panels (Woodville model) |                   |
|      | <b><i>2x3 Framing</i></b>                     |             | <b><i>Hardware</i></b>                     |  |                   |
| 4    | Gable Overhangs                               | 47 "        | 3  | lb. 10d Sinkers                                |                   |
| 4    | Gable Overhangs                               | 42 1/4"     | 4  | lb. 6d Galv.                                   | 28 Truss Hangers  |
| 2    | Gable Blocks                                  | 6 1/4"      | 6  | lb. 6d Common                                  | 75 Hinge Screws   |
|      | <b><i>Pre-built Components</i></b>            |             |  |  | 1 Door Hasp       |
| 14   | Pre-built Truss Halves                        |             |  |  | 2 4" Barrel Bolts |
| 2    | 32" x 72" Pre-built Barn Doors                |             | 4  | lb. Hanger Nails                               | 2 6" Barrel Bolts |
| 2    | 18" x 29" Loft Door Frames                    |             | 4  | 4" Door Hinges                                 | 12 2-1/2" Screws  |
| 1    | 2x3 Door Header                               | 67-1/2"     | 6  | 5" Door Hinges                                 | 36 1-1/4" Screws  |
|      | <b><i>Loft Floor &amp; Roof Sheathing</i></b> |             | 26   | 1x4 Drive-on Plate                             | 24 1-5/8" Screws  |
| 2    | 42" x 80"                                     | 2 42" x 72" | <b><i>Miscellaneous Lumber</i></b>         |  |                   |
| 2    | 46" x 80"                                     | 2 46" x 72" | 16   | Wood Truss Ridge Gussets                       | 8" x 24"          |
| 2    | 48" x 48"                                     | 8 24" x 48" | 28   | Wood Bottom Truss Gussets                      | 12" x 12"         |
| 2    | 42" x 48"                                     | 2 46" x 48" | 2  | Center Truss Blocks w/gusset                   | 3-1/2"x7-1/2"     |