



# Best Barns USA Assembly Book

Revised June 30, 2023



the Tahoe

12'x 16'

**Manufactured by RBS Holdings, LLC**

205 Arlington Drive

Greenville, PA 16125

This manual is copyrighted. Under the copyright laws, this manual may not be copied, in whole or in part, without consent from RBS Holdings, LLC © Copyright 2022

## IMPORTANT INFORMATION ABOUT YOUR KIT

Thank you for purchasing our kit. Please read the following information before beginning construction. Always check with your local HOA or building code office for any requirements or restrictions.

Floor: Wood flooring is sold optionally. You may choose to build your own or pour a cement pad.

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

Tools Required:	Hand or Circular Saw	Level	Safety Glasses
	Cordless Drill	Measuring Tape	Dust Mask
	Hammer	6'-8' Ladder(s)	Phillips Screwdriver
	Pencil		Framing Square

#### Additional Materials - **Not included in kit:**

Required: 8' x 7' Garage Door with 6" low headroom track

Shingles or metal roofing, Drip Edge, Roofing Nails or Screws

Paint, Silicone Paintable Sealant

Optional: Windows, Walk-in Door, Ridge Vent

#### Terminology:

Square - Confirm corners are at 90 degrees

Plumb - Confirm walls and trusses are straight vertically

Wall Plate - Top and bottom 2x4s used to frame walls

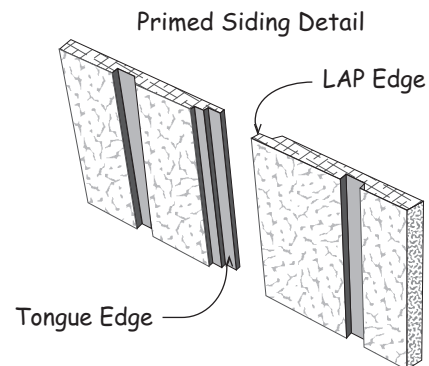
Tie Plate - 2x4s connecting wall sections together

Header - Spans top of door opening

OSB - Oriented Strand Board

LAP - Edge of siding that overlaps Tongue

Tongue - Edge of siding that is overlapped



#### Organize:

Unpack all items & organize according to size and type. This will make items easier to find when instructed.

Review the parts list on the back page. Should there be missing items or sub-par material contact Best Barns Customer Service.

DO NOT discard any material including the pallet until your project is complete.

#### Assembly:

Review all instructions before you begin. Please follow steps carefully and in sequence for successful results.

**IMPORTANT:** Before painting seal the top of all horizontal edges of trim where water can lay.

If you have any questions we are happy to assist you. Please contact us at:

**800-245-1577** - Mon - Fri 8AM - 5PM EST

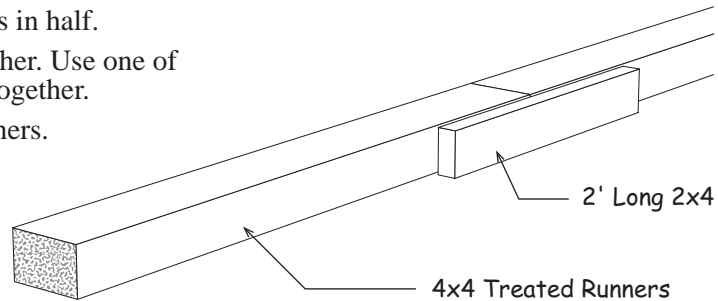
**724-866-4357** - After hours and weekends

**Email** - [help@barnkits.com](mailto:help@barnkits.com)

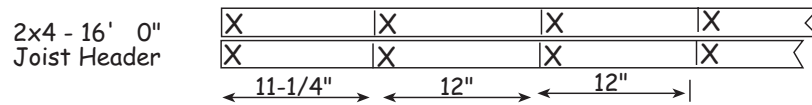
## Optional Wood Floor System

Shown below is a typical wood floor. Depending on your area, the construction may have to be changed to meet local codes. The foundation size should be 12' - 0" x 16' - 0".

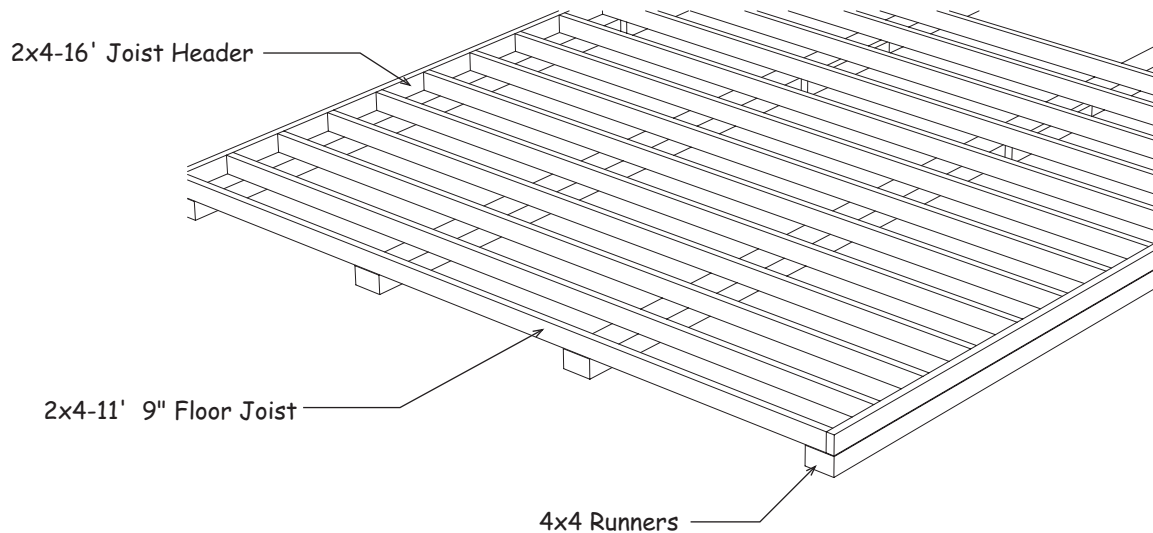
1. Cut (2) two treated 2x4-8' boards in half.
2. Butt 4x4-8' treated runners together. Use one of the 4' long 2x4s to secure them together.
3. Repeat to join the other 4x4 runners.



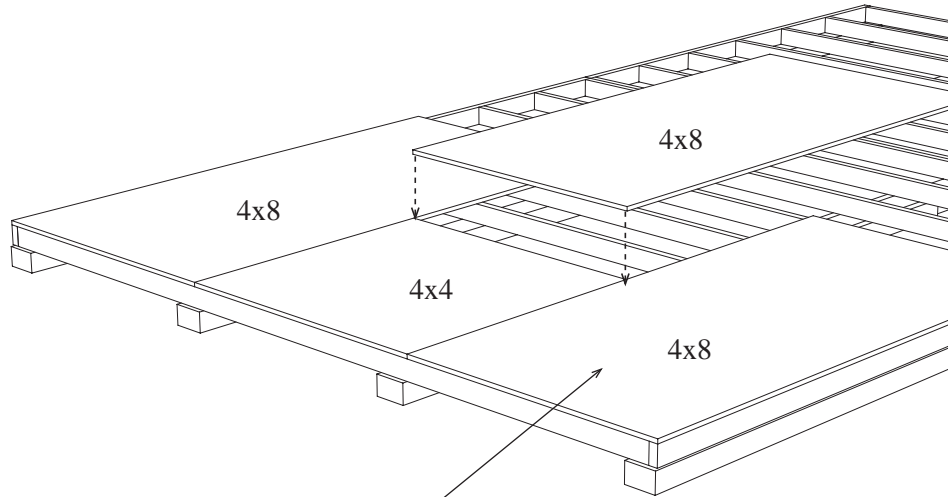
4. Cut (2) two 2x4-16' joist headers to 16' - 0".
5. Layout for 12" on center joist spacing. 'X' marks where floor joist will be placed.



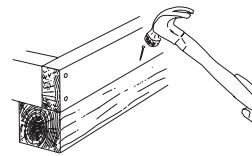
6. Cut all the 2x4-12' boards to 11'-9". These boards will be the floor joist. *Treated lumber may be thicker than 1-1/2". Take this into account when cutting the length of floor joists. Shorten joist measurements if necessary to obtain 12'-0" building width.*
7. Install floor joist boards between the joist headers. Install this section over the 4x4s.



8. Square the floor. See note below. The angle measurement should be 20' - 0". Nail several floor joist to the 4x4 runners to hold the floor frame in place.



9. Install floor using 8d spiral nails.



### *Notes To Floor*

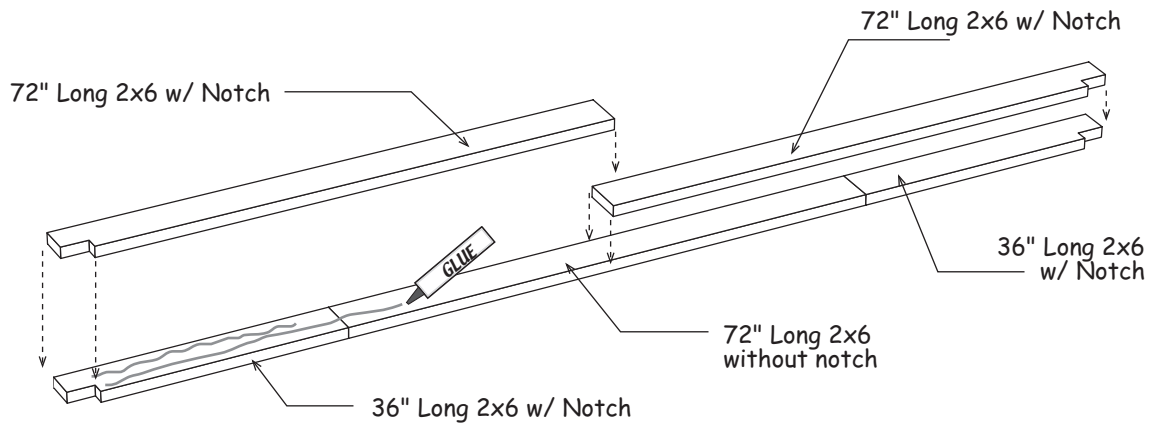
<b>Material Description</b>	<b>12' x 16' shed</b>
2x4 Treated	2 pcs. 8'
2x4 Treated	17 pcs. 12'
2x4 Treated	2 pcs. 16'
4x4 Treated Runners	8 pcs. 8'
Flooring 5/8" or 3/4"	6 pcs. 4x8
Screw Floor Nails	3 lb. 8d
Galv. Box Nails	4 lb. 16d

It is important that the floor be level and square. Square the floor as follows: before nailing the flooring, measure the floor diagonally (corner to corner). Then measure the opposite corners. These measurements will be the same if the floor is square.

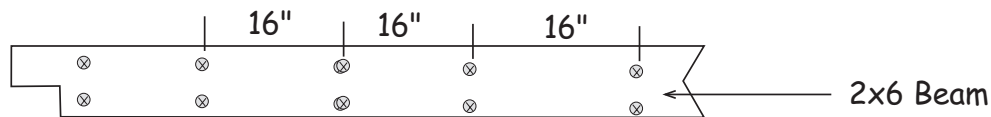
When using a concrete slab for a floor, use the same overall foundation measurements. Install foam sill sealer as a moisture barrier between the concrete and the wall plates. Foam sill sealer is available in rolls, 3-1/2" or wider.

## Step 1 Assemble Loft Beams

1. Locate (2) two 36" long 2x6 boards with a notch on one end and a 2x6 board without a notch. Position these 2x6 boards on a flat surface as shown below.
2. Apply a coat of glue with a brush to the top surface using wood glue supplied in kit.
3. Locate (2) two 72" long 2x6 boards with a notch on one end. Install these 2x6 boards over the bottom boards.



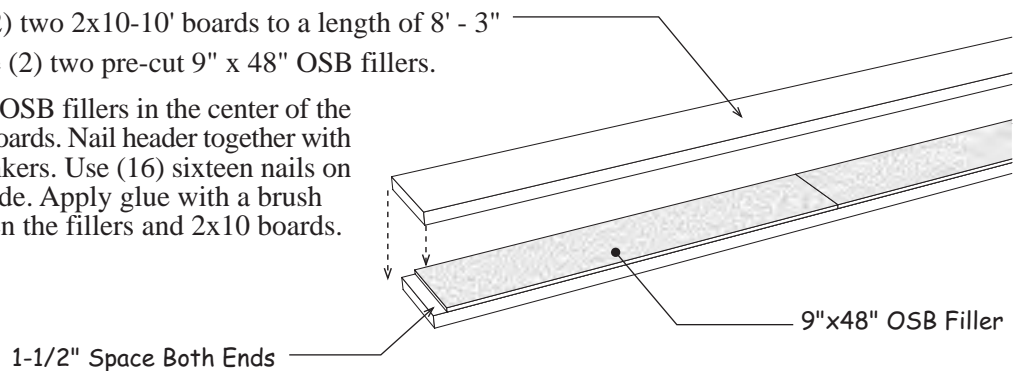
4. To provide additional strength, install 2-1/2" wood screws spaced 16" apart as shown below.



5. Repeat steps to assemble another 2x6 beam.

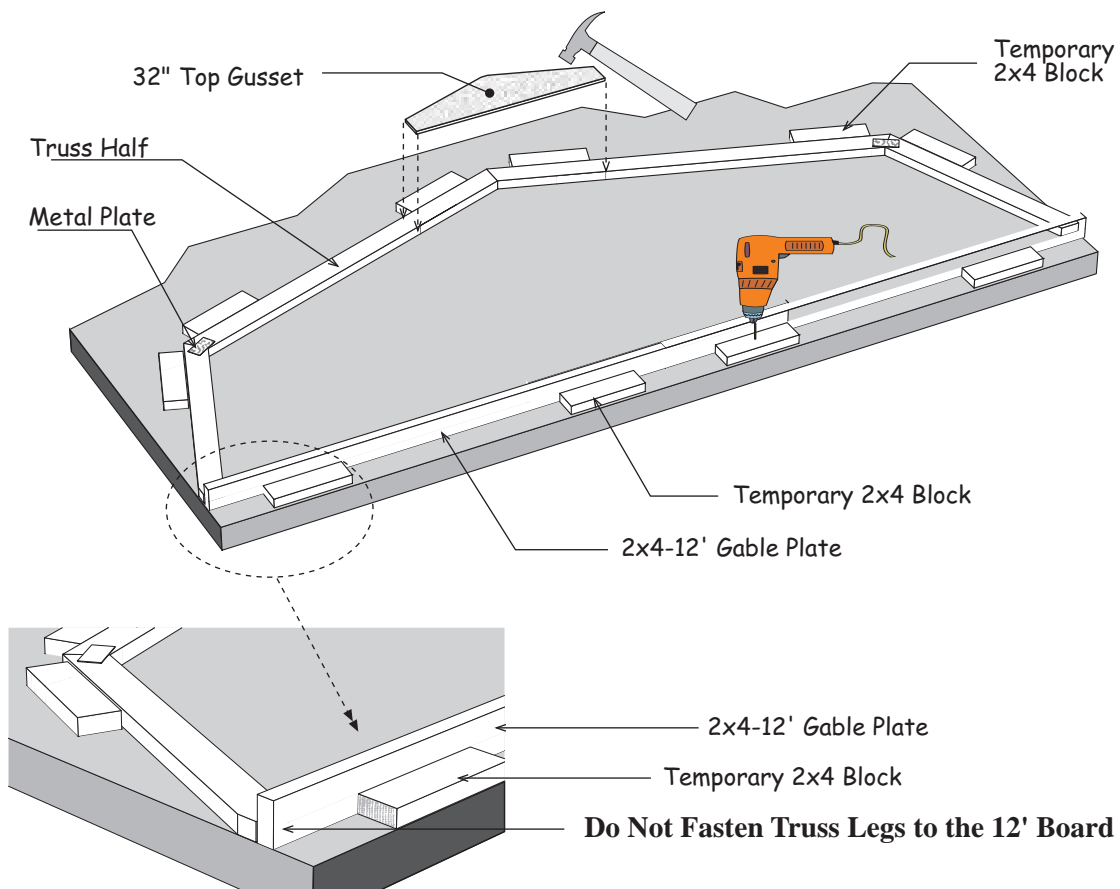
## Step 2 Assemble Door Header

1. Cut (2) two 2x10-10' boards to a length of 8' - 3"
2. Locate (2) two pre-cut 9" x 48" OSB fillers.
3. Install OSB fillers in the center of the 2x10 boards. Nail header together with 10d sinkers. Use (16) sixteen nails on each side. Apply glue with a brush between the fillers and 2x10 boards.



### Step 3 Assemble Trusses

1. If necessary cut (2) two 2x4-12' boards to 12' - 0". Position one on the floor with the narrow edge side down. Use short, *that may have an angle on one end*, 2x4 blocks secured temporarily to floor (NOT to gable plate) with 2-1/2" wood screws to hold the 2x4 plate straight.
2. Position (2) two truss halves (2x4s connected with a metal plate) with the short legs against the 2x4 Gable Plate : **DO NOT** attach the Gable Plate to the truss. It is temporarily used to help hold the 2x4 truss parts in place. It will be attached later when building the roof gables.
3. Secure short 2x4 blocks around the perimeter of truss to hold truss parts in place. These blocks will insure all trusses and gables are made the same.

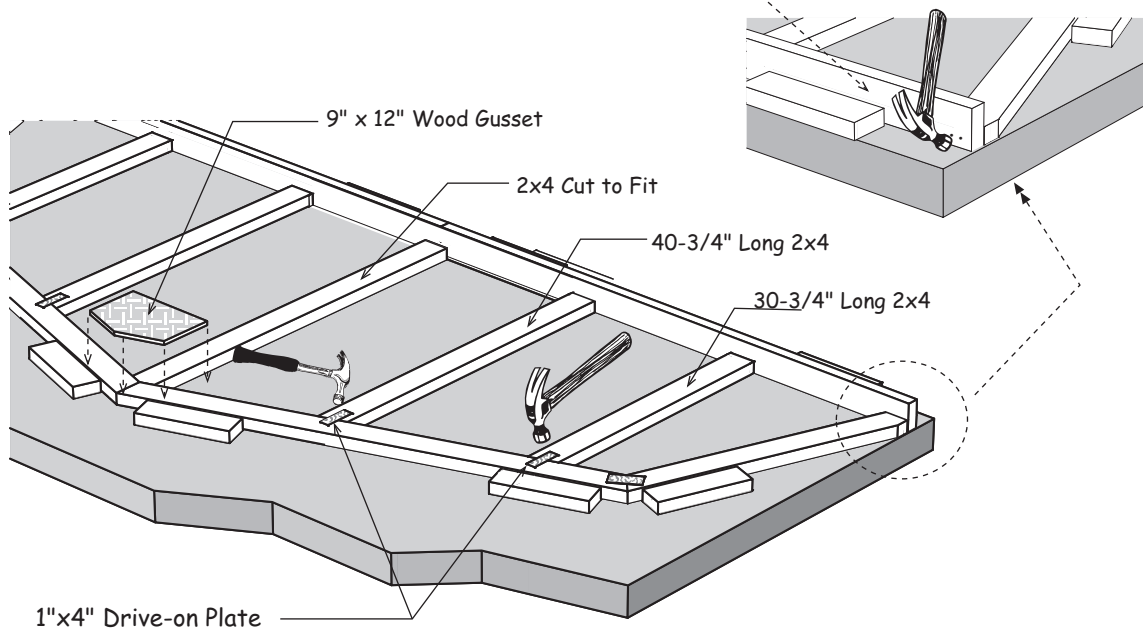


4. Secure the 2x4s at the peak with a 32" wood gusset. Apply wood glue with a brush between the gusset and 2x4s. Nail gusset using (20) twenty 6d common nails.
5. Turn the truss over and install a gusset to the other side of the truss.
6. Repeat to assemble (6) six more trusses.




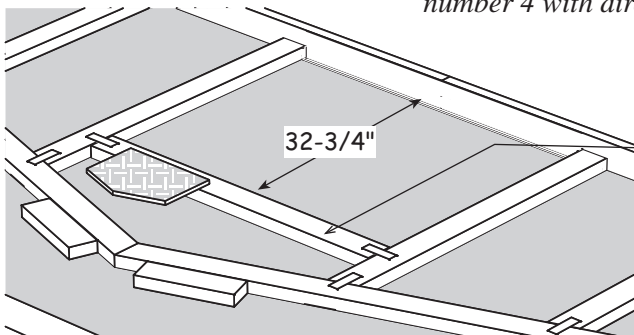
## Step 4 Assemble Roof Gables

1. Place (2) two truss halves together on the 2x4 gable plate.
2. Place (2) two 40-3/4" long 2x4s. Secure the bottom to the 2x4 gable plate by nailing through plate with 10d sinkers. Secure the top with 1"x4" barbed plates.
3. Install (2) two 30-3/4" long 2x4s with barbed plates and nails.
4. Cut a 50" long 2x4 with angles on one end to fit between gable plate and under center of truss peak. Nail through gable plate with (2) two 10d sinkers. Secure the top with a 9"x12" gusset.
5. Nail truss leg to 12' Gable Plate with 10d sinkers.



6. Position 2nd gable plate and repeat steps to assemble the front roof gable. **Read note below:**

 *If you want the loft doors to open, repeat steps 1-5 substituting number 4 with directions below:*



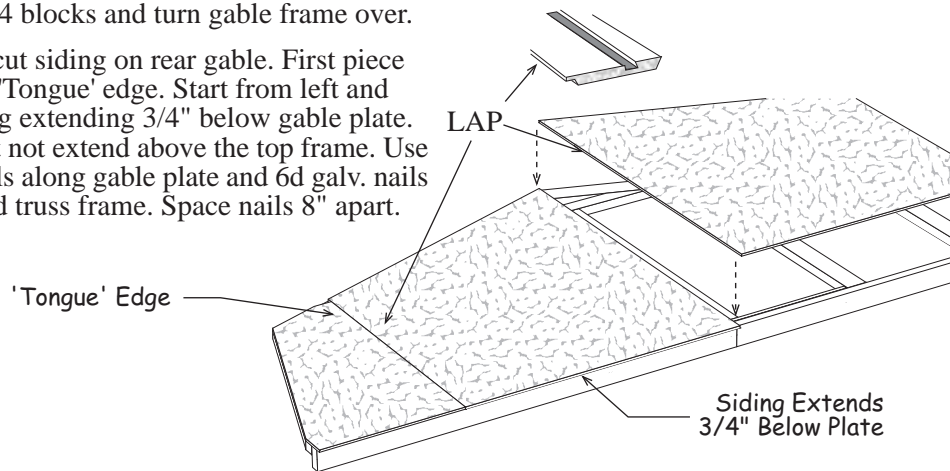
4. Cut a 50" long 2x4 with angle cuts on one end and install between the 40-3/4" boards. Secure with 1"x4" metal barbed plates. Install this board 32-3/4" from the 2x4 plate. Secure the top with a 9"x12" gusset.

 Remove temporary 2x4 blocks

## Step 5 Apply Siding to Rear Roof Gable

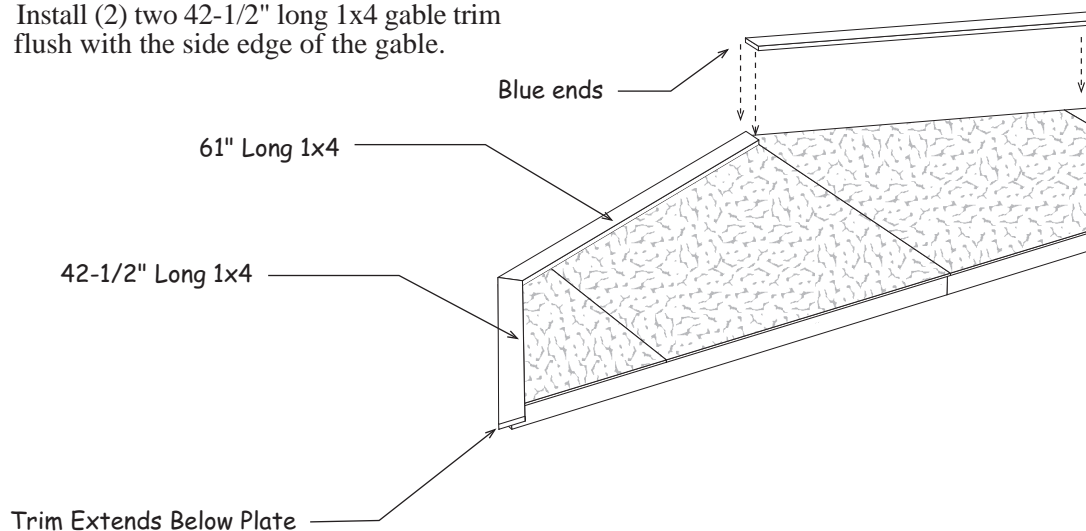
**Building Tip:** Gather all pre-cut gable siding and position them on gable frames before nailing. All siding should extend 3/4" below Gable Plate. If siding extends above frame cut siding flush with frame.

1. Remove 2x4 blocks and turn gable frame over.
2. Install pre-cut siding on rear gable. First piece will have a 'Tongue' edge. Start from left and install siding extending 3/4" below gable plate. Siding must not extend above the top frame. Use 6d galv. nails along gable plate and 6d galv. nails on studs and truss frame. Space nails 8" apart.




## Step 6 Apply Trim to Rear Roof Gable

1. Install (2) two 61" long 1x4 gable trim flush with the top edge of the gable. The ends marked with blue meet a peak. Install trim with 6d galv. nails spaced 12" o.c.
2. Install (2) two 42-1/2" long 1x4 gable trim flush with the side edge of the gable.





## Step 7 Apply Siding to Front Roof Gable

 If you are installing the loft doors and trim as a decorative plant (not operating) install the siding as done with rear gable but **starting from right side rather than from left side**. Skip to steps 2 and 3 below.

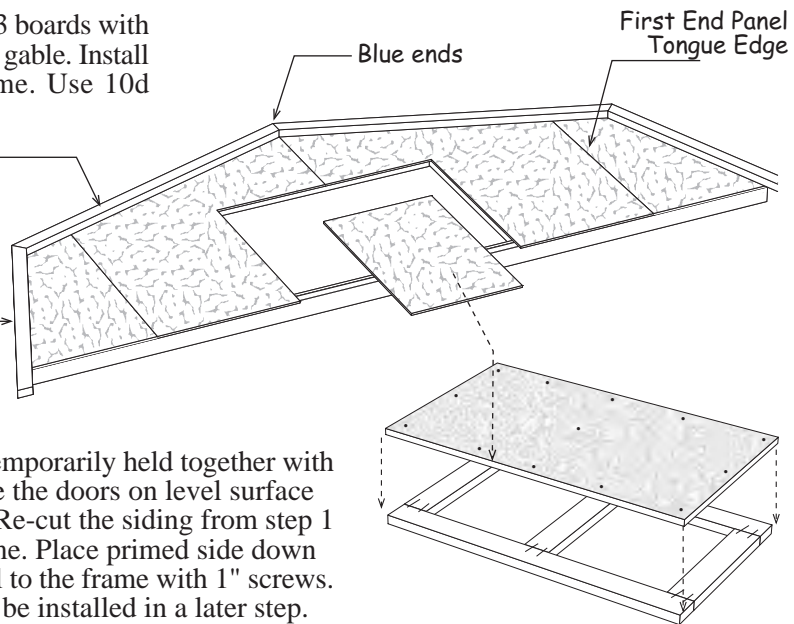
1. Select a siding panel with a 'Tongue' edge and install on right side of gable. Before you install the center siding panels, lay them on the frame and trace the top and side of the door opening on the siding panels. Cut panels from bottom of siding to top of door opening. Save these pieces to be installed on loft doors below.

2. Install (2) two 61" long 2x3 boards with blue marking at peak of the gable. Install 2x3 flush with gable frame. Use 10d sinkers spaced 12" apart.

61" Long 2x3

3. Install (2) two 42-1/2" long 2x3s. Use 10d sinkers.

4. The loft door frames are temporarily held together with corrugated fasteners. Place the doors on level surface with fasteners facing up. Re-cut the siding from step 1 to the size of the door frame. Place primed side down and secure the siding panel to the frame with 1" screws. Set doors aside. They will be installed in a later step.




## Important Information on Framing and Siding Walls

If installing the building on a wood floor siding should extend 3/4" below bottom plate.  
If installing on a cement slab cut the siding flush with the bottom plate.

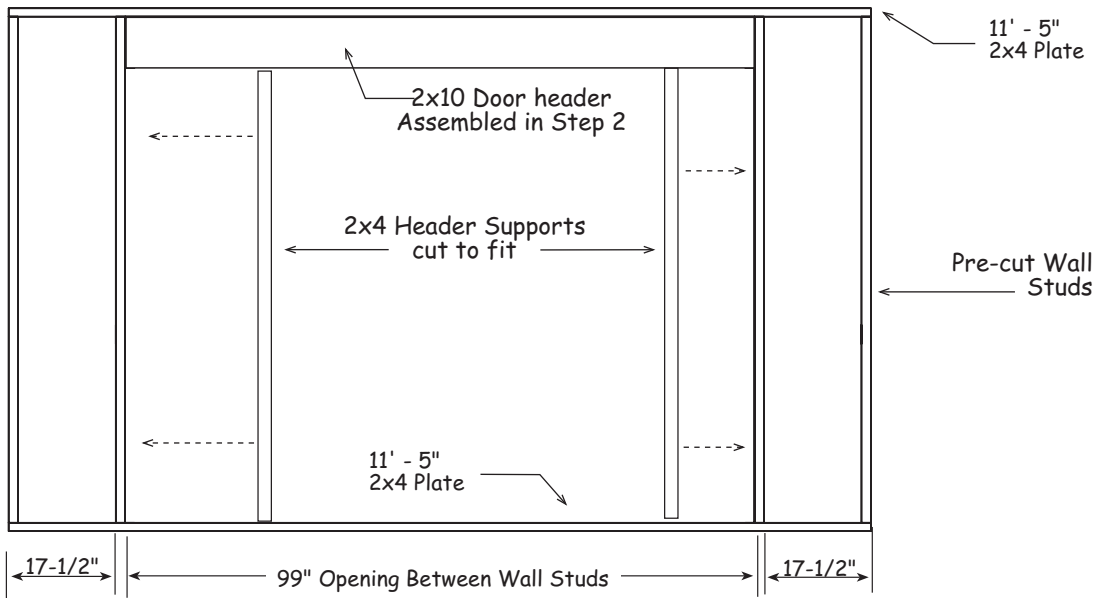
Square wall frame before installing siding. Measure diagonally (corner to corner). The measurements will be the same when the wall is square.

If you are installing the optional walk-in door refer to the door manufacturers installation instructions for correct rough opening size. Depending on your preferred location you may need to purchase additional framing lumber.

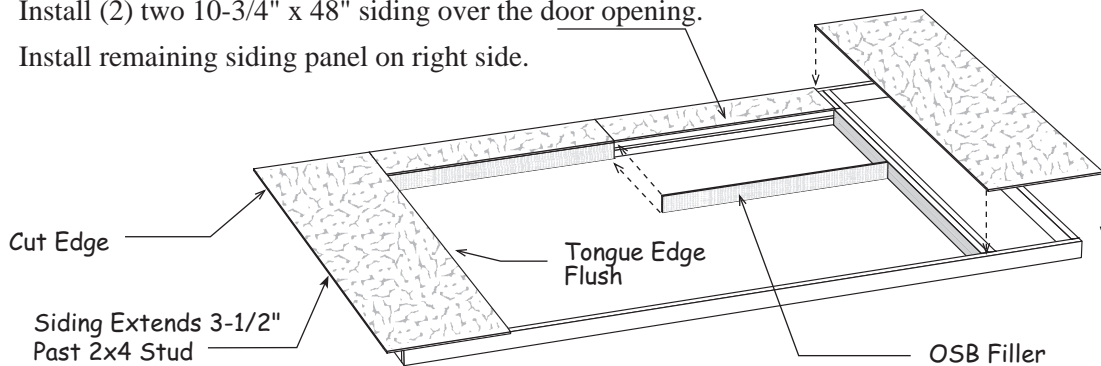
 *The length of pre-cut studs will vary from 92-1/4" to 93" depending the what part of the country you are located.*

## Step 8 Assemble Front Wall

1. Cut (2) two 2x4-12' boards to 11'- 5" in length.
2. Install (4) four pre-cut wall studs between the plates as shown below. Use (2) two 10d sinkers on each end per stud.
3. Install the 2x10 door header assembled in **Step 2**. Nail through top plate with 10d sinkers spaced 12" apart and through pre-cut stud.
4. Cut to fit (2) two pre-cut wall studs and install between door header and bottom plate. Use 10d sinkers.

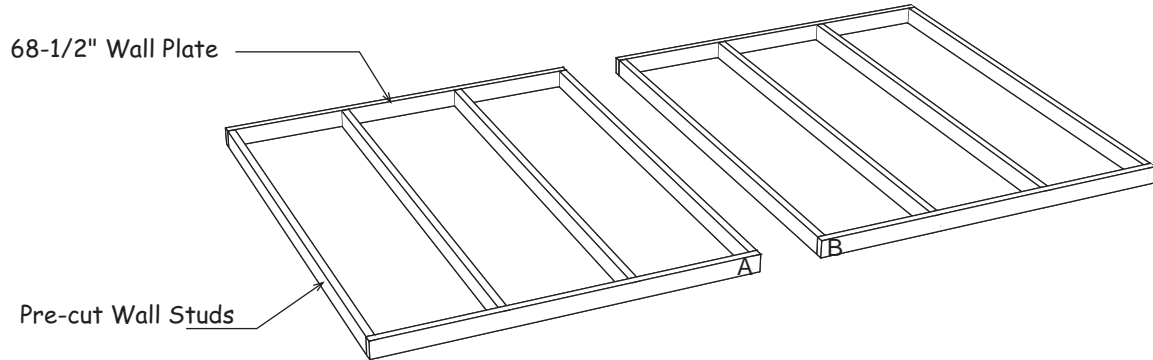
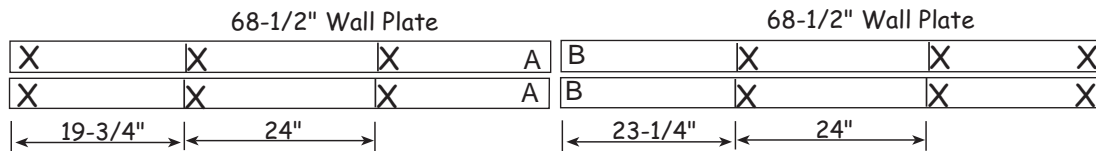


5. Cut a 4x8 siding panel in half. Install the half with the tongue edge flush with door opening and extending 3-1/2" beyond the end of the wall stud. Siding should extend 3/4" below the bottom plate unless installing building on concrete slab. Use 6d galv. nails spaced 8" apart.
6. Install (2) two 3-1/2" x 48" OSB fillers under the door header.
7. Install (2) two 10-3/4" x 48" siding over the door opening.
8. Install remaining siding panel on right side.

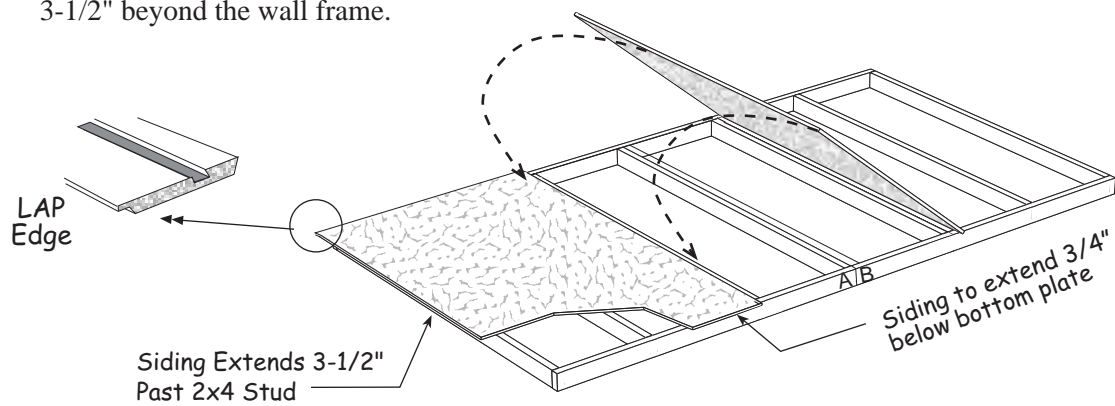


## Step 9 Assemble Back Wall

1. Position (4) four 2x4x68-1/2" boards together and indicate with 'X' marks where the wall studs will be located. Mark the ends that will butt together with the letters 'A' and 'B'.
2. Install (8) eight pre-cut wall studs, between the 2x4 plates, over the 'X' marks and where the plates butt. Use (2) two 10d sinkers at each end of stud. Nail walls together using (4) four 10d sinkers on each side of studs.

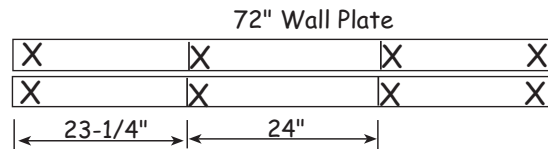


3. Install the 1st siding panel with the 'LAP' edge extending 3-1/2" past the wall frame. The bottom will extend 3/4" below the bottom plate. Tip: Use 3/4" trim board as a gauge.
4. Install the (2) two more siding panels. Cut the last panel to extend 3-1/2" beyond the wall frame.

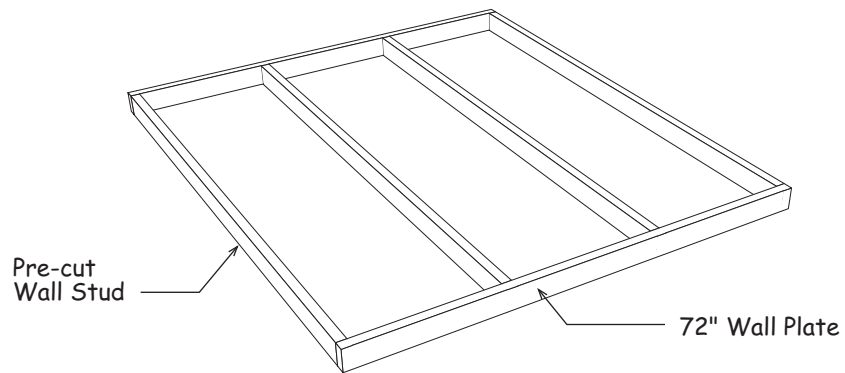


## Step 10 Assemble Side Walls

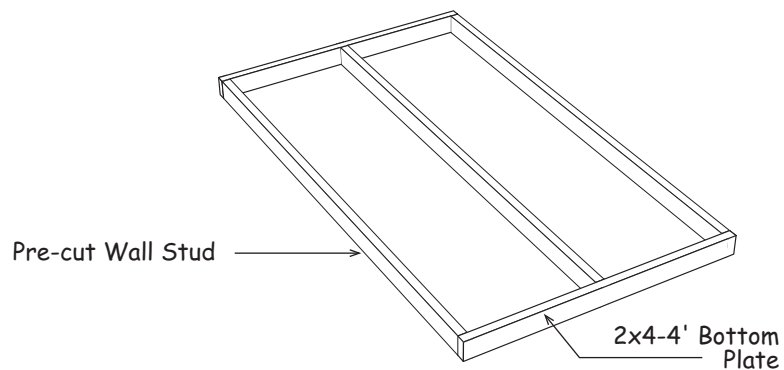
1. Position (2) two 2x4-72" boards together and indicate with 'X' marks, where the wall studs will be located.



2. Install (4) four pre-cut studs between the wall plates Use (2) two 10d sinkers at each end of stud.



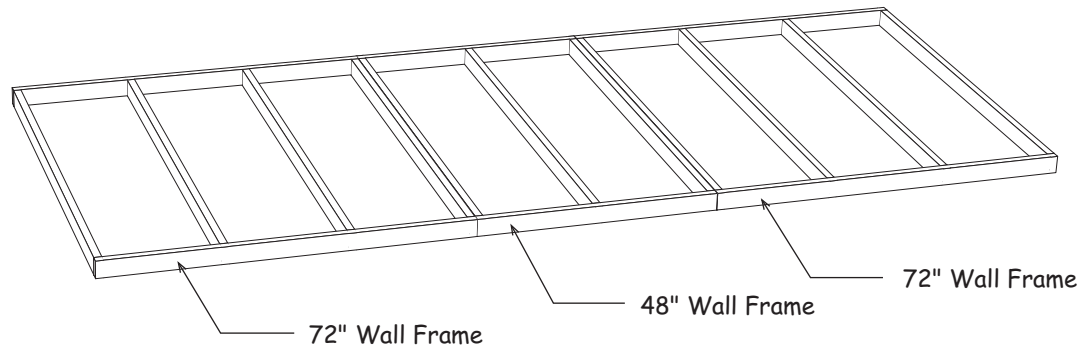
3. Repeat process to assemble (3) three more 72" wall frames.
4. Install (3) three pre-cut wall studs between (2) two 48" long 2x4s boards. Install the stud in the center of the wall frame.



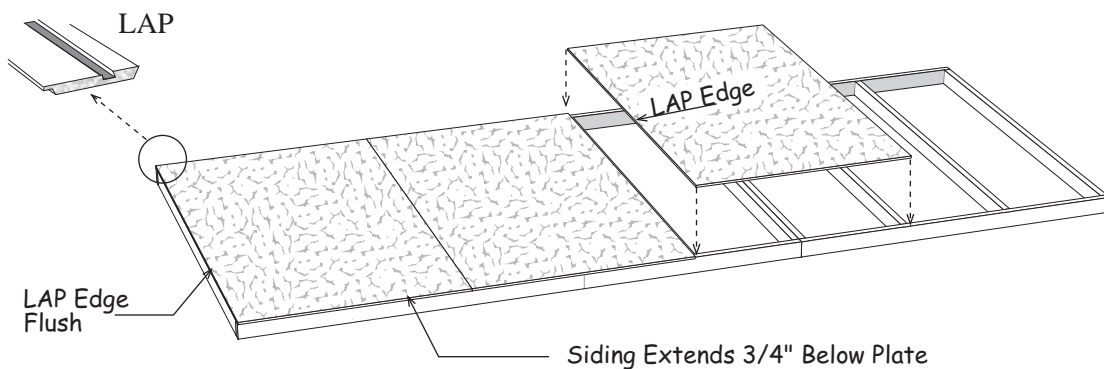
5. Repeat to assemble another 4' wall frame.

## Step 11 Assemble Side Walls Continued

6. Position a 48" wide wall frame between (2) two 72" wall frames as shown below. Nail frames together with 10d sinkers.



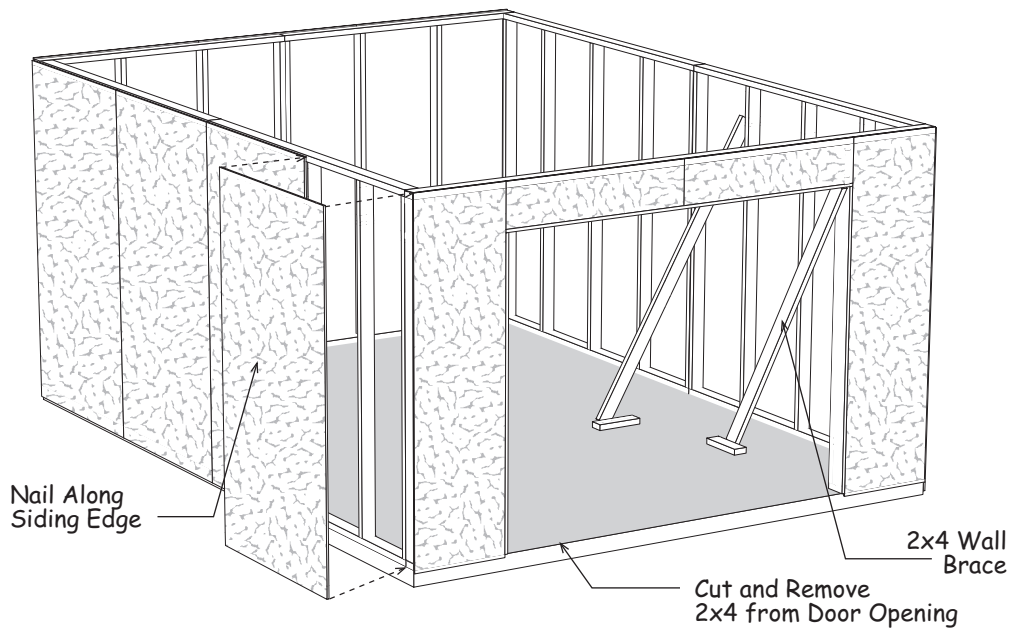
7. Install the first siding panel with the 'LAP edge' flush the end of the wall and extending 3/4" below the bottom plate.
8. Install (2) two more siding panels. You can install the last siding panel now or after the walls are erected making the panel easier to handle.



9. Repeat steps 6-8 to assemble the another side wall.

## Step 12 Set Walls

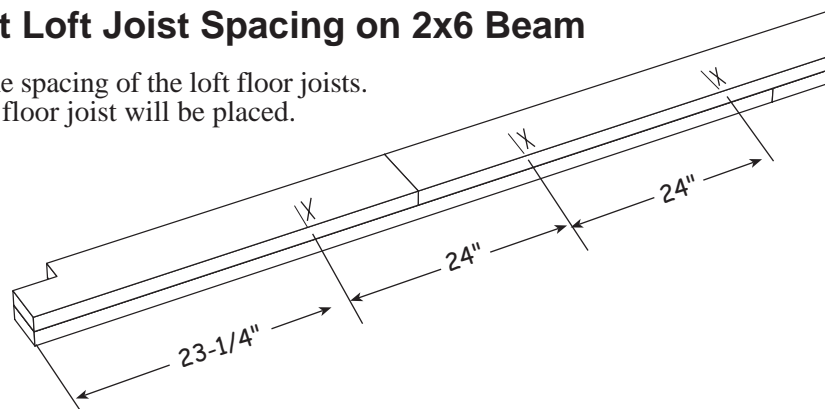
1. Set the back wall panel between the side walls. Secure wall panels together at the corners. Use (4) four 10d coated nails per corner. Secure wall panels to the floor. DO NOT nail through 2x4 in door opening. Use 10d sinkers or, if erecting on a concrete slab, concrete anchor (not included) spaced 24" apart.
2. Install the front wall frame between the side walls.
3. Install the last siding panel on the side walls. Nail along the siding edge where the side wall siding panels overlap.
4. Brace walls with pre-cut studs.



5. Cut and remove the bottom 2x4 in the door opening.

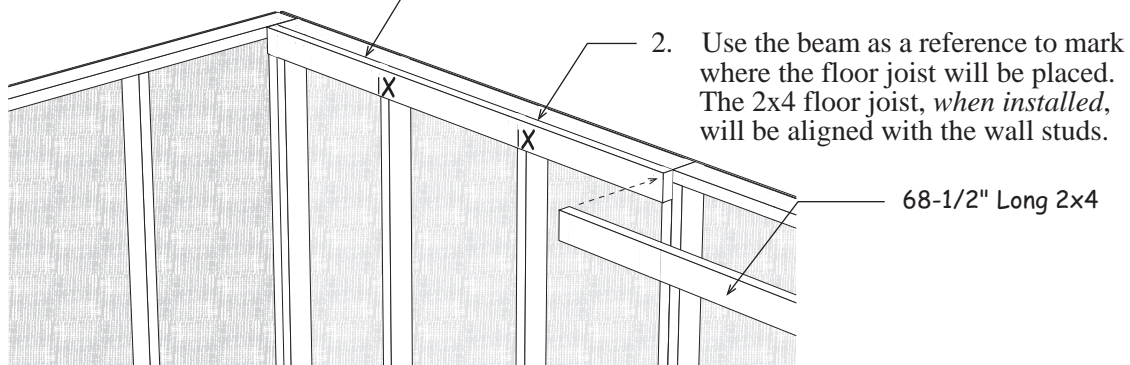
## Step 13 Layout Loft Joist Spacing on 2x6 Beam

Layout both beams for the spacing of the loft floor joists. The 'X' marks where the floor joist will be placed.



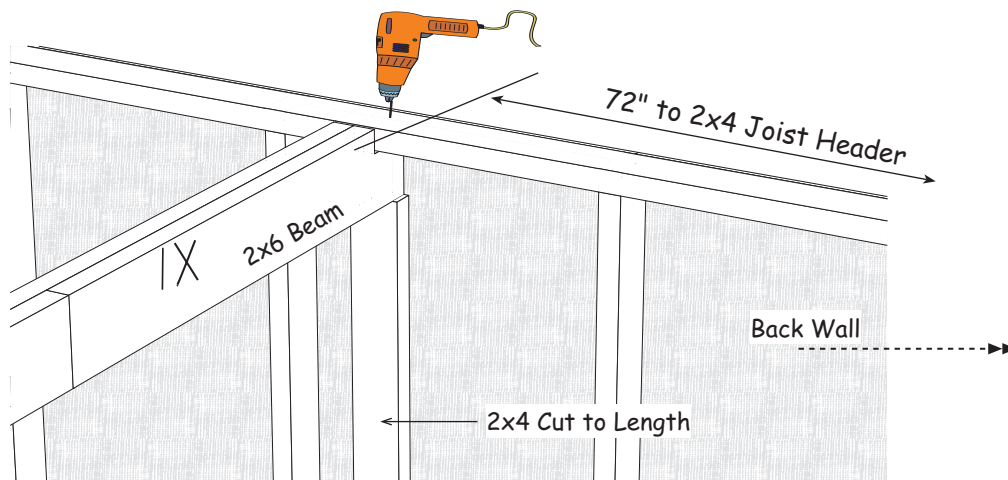
## Step 14 Install Loft Joist Headers & 2x6 Loft Beams

1. Install (2) two 68-1/2" long 2x4s on the back wall to support the floor joist. Install the 2x4s flush with the top of the 2x4 wall plate. Secure to wall studs with 10d sinkers.



3. Repeat to install joist header support boards on the front wall.
4. To allow access to the loft area, a 16' long building requires cutting (10) ten 7' long 2x4s to a length of 6'.
5. Install the rear 2x6 beam, 72" from the 2x4 joist header boards, with the 'X' marks on the beam facing the back wall. You can use a 2x4-6' board as a gauge to properly space the beam. Refer to **Step 15** to see how the loft floor joist will be installed.

Place the notch under the top plate and support the beam by cutting a pre-cut wall stud and placing under the beam. Further secure the beam with a 3" wood screw through the top of the wall plate and toenail to the bottom plate and beam with 10d sinkers.

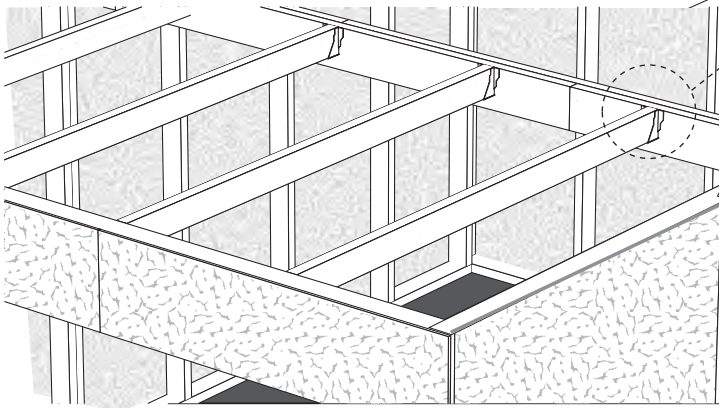
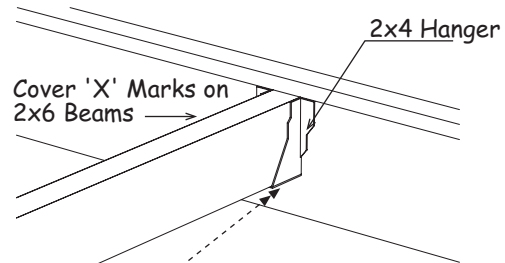


6. Repeat to Install the other beam with the 'X' marks on the beam facing the front wall. When the front beam is installed there will be 56" between the beams



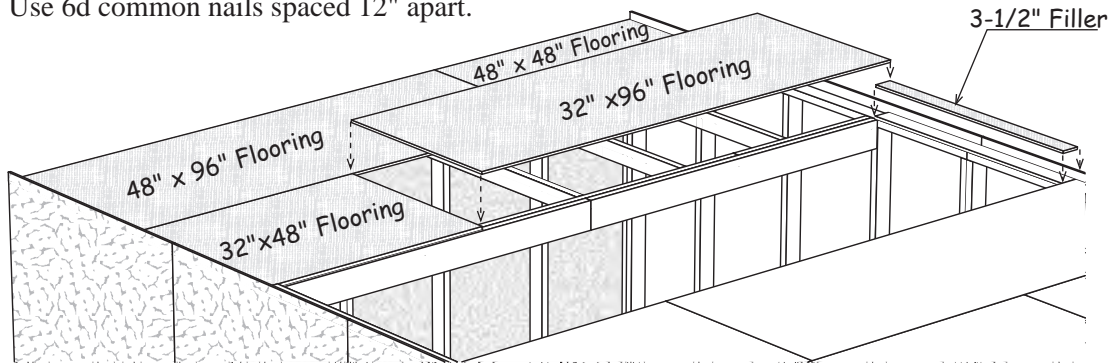
## Step 15 Install Loft Floor Joists

Install (5) five 72" long 2x4s between the back wall 2x4 joist headers and rear 2x6 header. Use 2x4 hangers with 6d common nails. Repeat for front loft area.



## Step 16 Install Loft Flooring

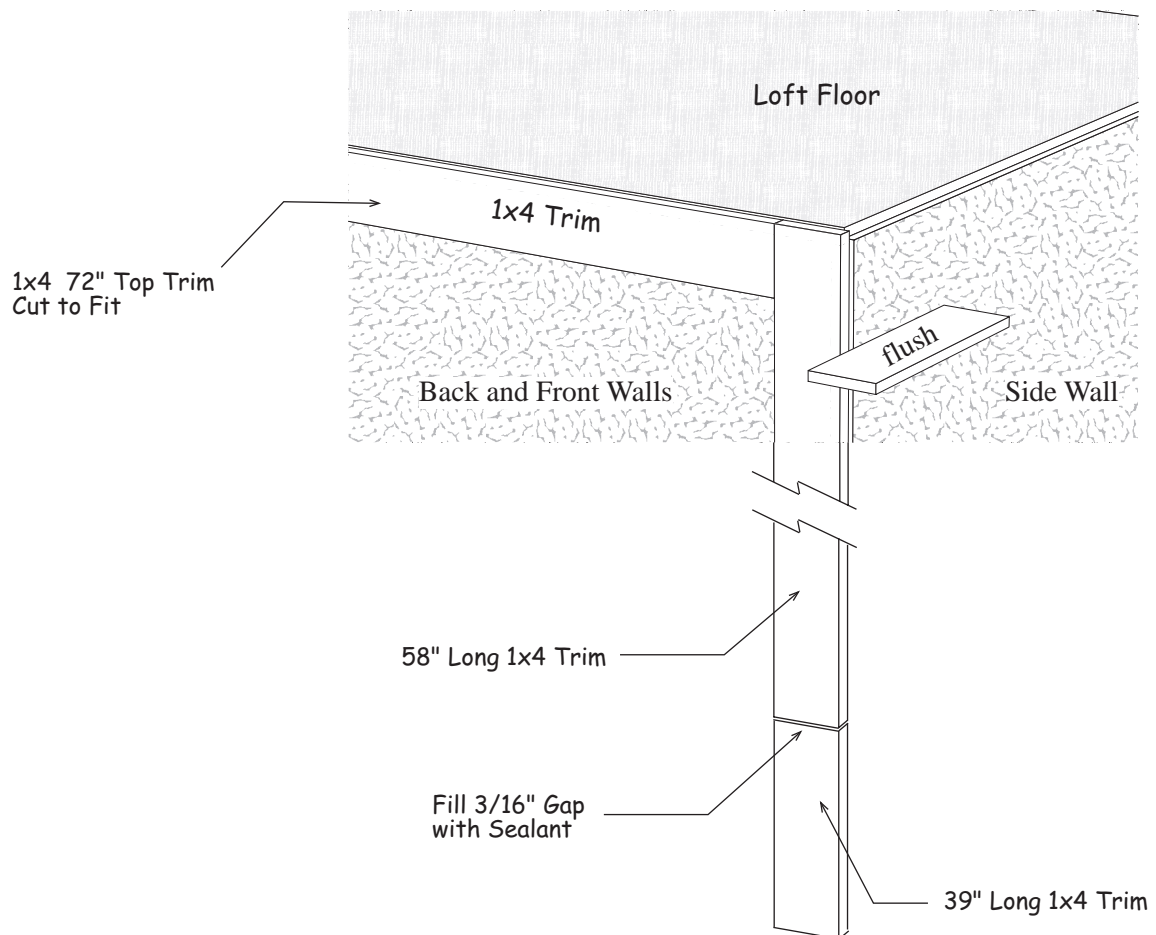
1. Cut a 4x8 sheet of 7/16" OSB in half to get (2) two 48"x48" pieces. Cut (1) one of these to a width of 32". Cut a 4x8 OSB sheet to a width of 32". Install at rear of building as shown below. Use 6d common nails spaced 12" apart.



2. Repeat to install loft flooring at the front of the building.
3. Cut (2) two 3-1/2" x 56" OSB floor fillers to fit if necessary and install on top of side wall plates between the loft flooring. Use 6d common nails.

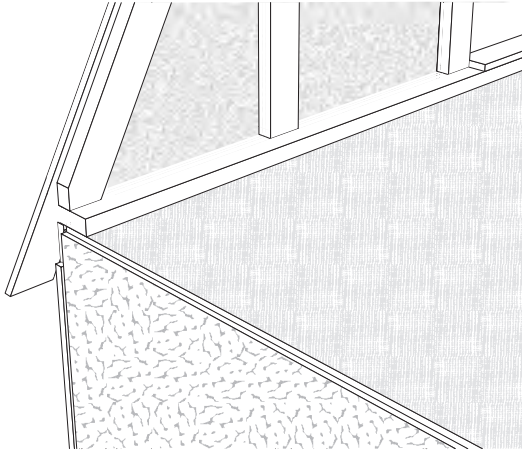
## Step 17 Install Wall Trim

1. Install (2) two 1x4-58" corner trim on the back wall, flush with the siding on the side wall and flush with the top of the loft flooring. Use a double row of 6d galv. nails spaced 12" apart.
2. Install (2) two 1x4-72" trim boards across the top of the back wall. Cut second one to fit. Install the 1x4 boards flush with the top of the loft flooring. *See diagram below.*
3. On the bottom edge of the 58" trim board apply paintable sealant (not included). Leaving a 3/16" gap between boards install a 1x4-39" trim board to bottom of 58" board. Insure there is sufficient sealant to fill gap. Bottom edge of 39" board should be flush with bottom of siding. Trim if necessary. Nail (2) two 6d galv. nails 3/8" from edge and ends on each board into siding and 2x4 framing.
4. Repeat steps for front wall trim.



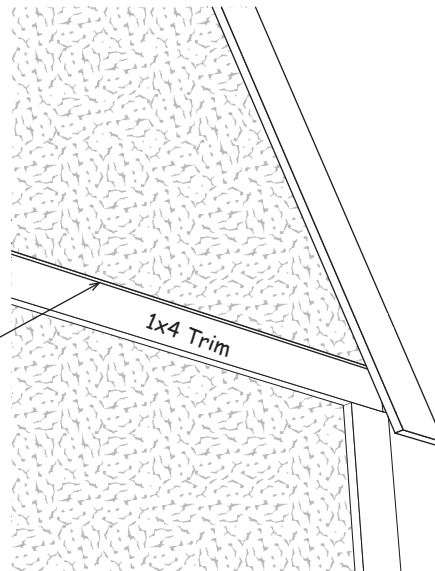
## Step 18 Set Rear and Front Gables

1. Install the rear gable on the rear wall. The ends of the gable plate will be flush with the edge of OSB on both sides. The siding on the gable must extend over the 1x4 trim board, not behind it. *See detail below.* Nail gable to loft flooring. Use 10d nails.



**WARNING:** The gable ends are heavy and awkward. You'll need helpers to lift and set gables in place.

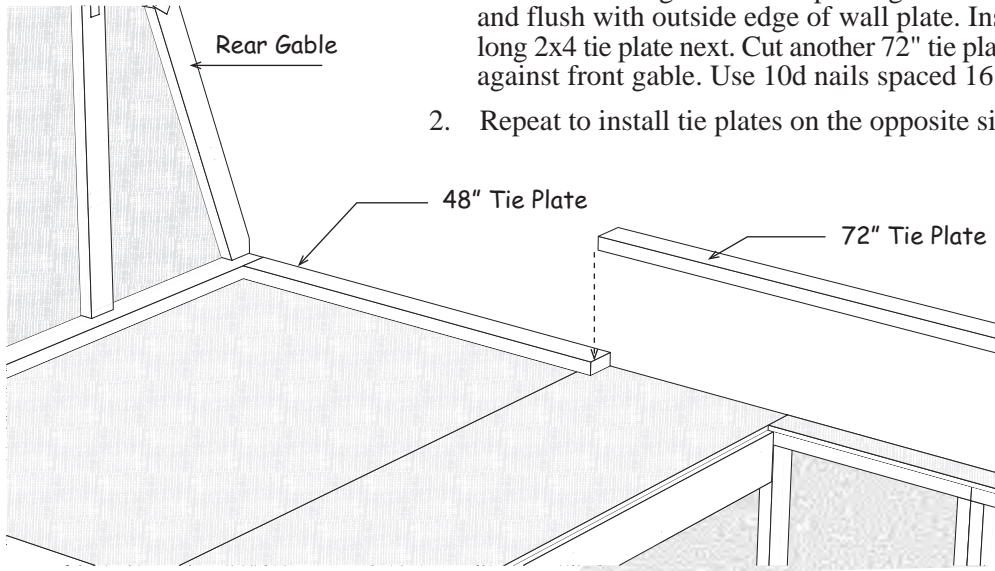
Bottom Edge of Gable Siding  
Overlaps Top Wall Trim



Rear Gable & Wall

2. Repeat to install front gable.

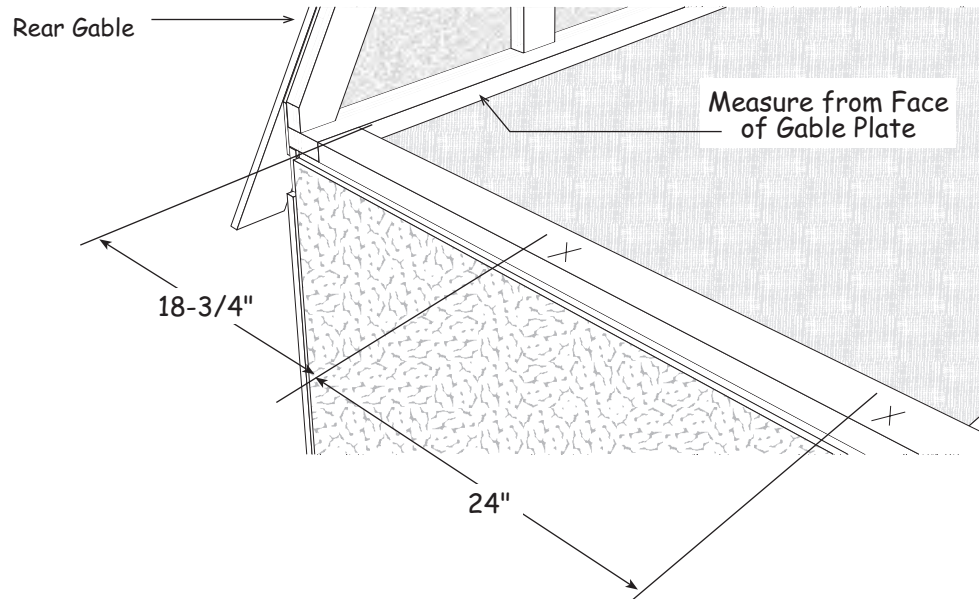
## Step 19 Install 2x4 Truss Plates



1. Install a 48" long 2x4 as a tie plate against the rear gable and flush with outside edge of wall plate. Install a 72" long 2x4 tie plate next. Cut another 72" tie plate to finish against front gable. Use 10d nails spaced 16" apart.
2. Repeat to install tie plates on the opposite side.

3. Layout the truss spacing. Measure from the inside face of the 2x4 gable plate to mark the location of the first truss. The last truss space will be more than 24".

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



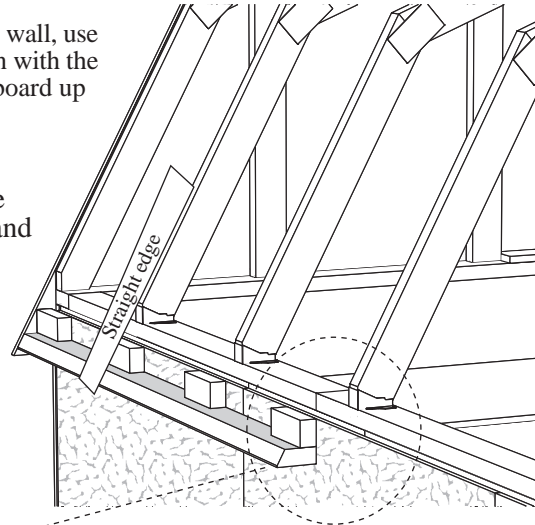
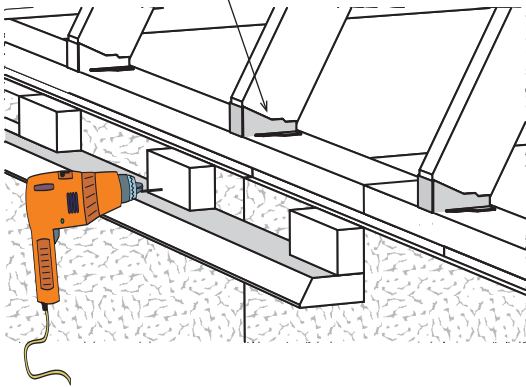
## Step 20 Install Trusses & Soffit Boards



Before installing the soffit boards to the side wall, use a straight edge to make sure the trusses align with the bevel cut on the soffit board. Adjust soffit board up or down if necessary.

1. Place trusses over the 'X' marks and secure trusses to 2x4 tie plate using 2x4 hangers and 10d sinker nails.

Metal Truss Hanger



2. Locate (3) three 84" long soffit boards that have a beveled edge. Butt against the rear gable trim. Secure soffit boards to the top wall plate with 3" long screws. Cut to length and install the last soffit board to fit behind 2x3 boards on the front gable.
3. Repeat to install on opposite side wall.

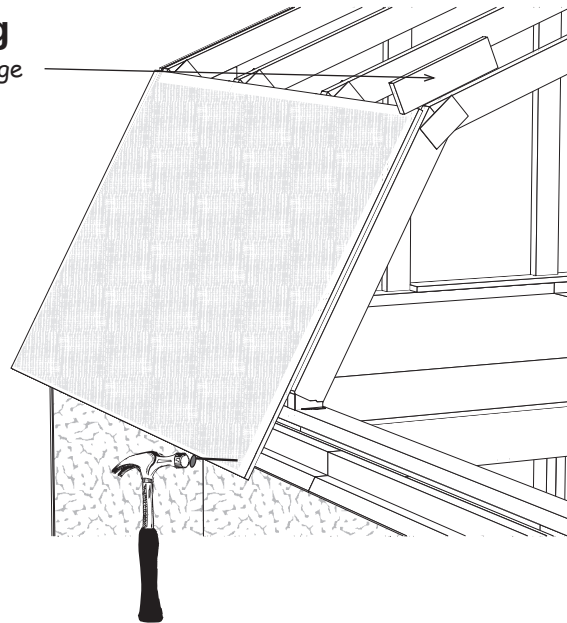
## Step 21A Install Roof Sheathing

Straight Edge

1. Install a 42" x 72" OSB roof panel flush with the face of the rear gable trim. Use a straight edge to align the top of the sheathing with the top of the truss. Continue adding sheathing following the layout on the next page. Use 6d common nails, spaced 8" apart.
2. Repeat step for opposite side.

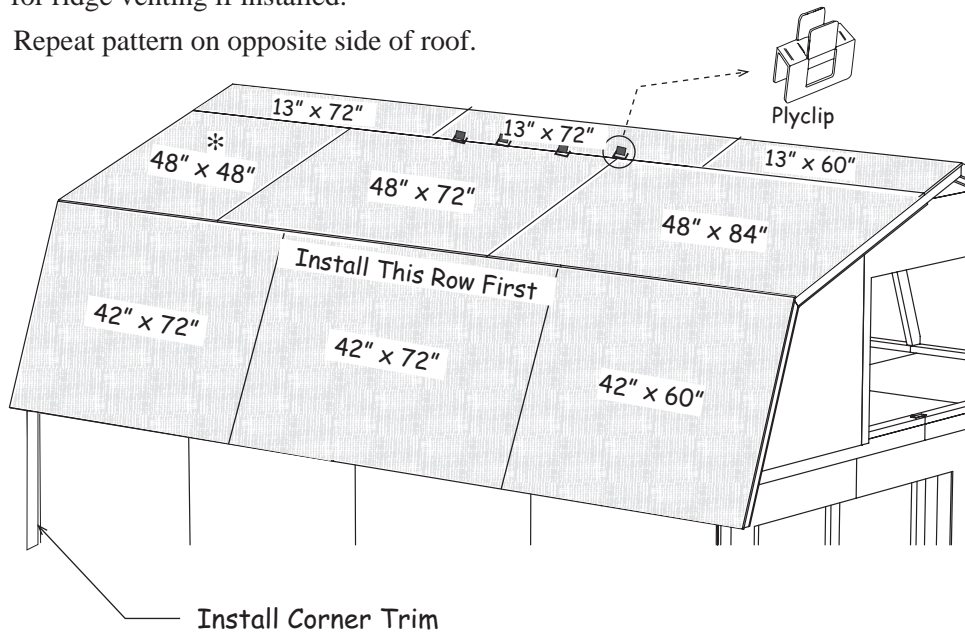


To prevent the nails from protruding through the bottom of the soffit board, do not nail at an angle when nailing roof sheathing to the soffit boards.



## Step 21B Install Roof Sheathing (continued) and Side Wall Trim

3. From (1) one 4x8 sheet of OSB cut (2) two 48"x48" sheets. Install in location indicated by an '\*'.
4. Before installing the last row of 13" OSB sheets insert (2) two plyclips onto roof sheathing between every truss. The top row of roof sheathing will be about 1" below the ridge to allow for ridge venting if installed.
5. Repeat pattern on opposite side of roof.

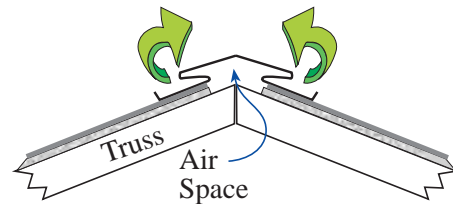


4. Referring to Step 17 Install Wall Trim locate (4) four 58" long and (4) four 39" long 1x4 trim boards. Install these boards on the side walls with the top butted to the soffit boards at the top and the edge flush with the face of the back and front wall trim.

## Install Roofing — Not Supplied in Kit

Install shingles according per 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 and moisture build-up from damaging your building or its contents.

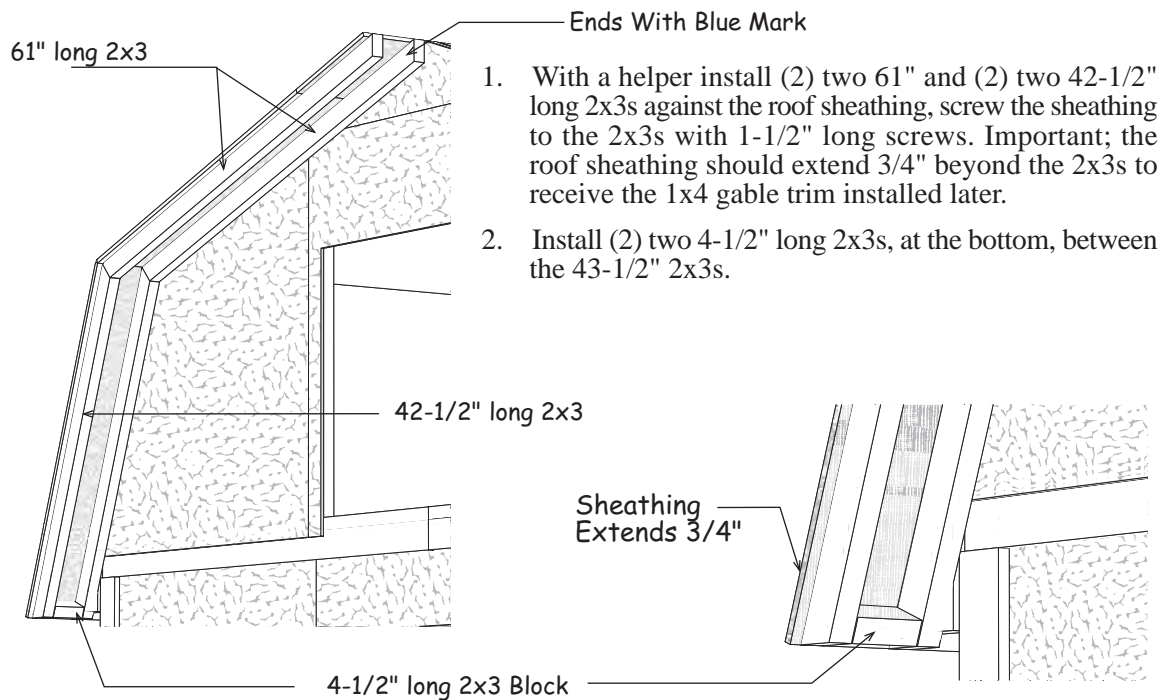


*Optional ridge vent provides ideal ventilation.*

Roof Covering: 12 bundle shingles - 8 pcs. roof edge - optional felt paper 1 roll

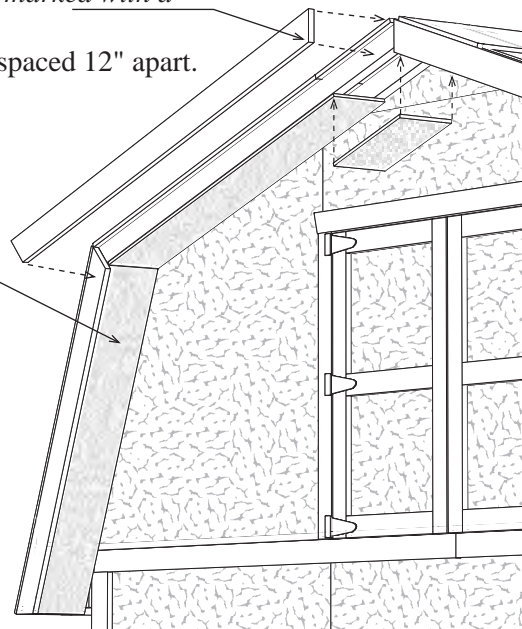


## Step 22 Install Front Gable Overhang



3. Install (2) two 1x4-64" gable trim, *with the ends marked with a blue line*, together at the ridge.  
Install trim boards with 6d galvanized box nails spaced 12" apart.

4. Install (2) two 43-1/2" long 1x4 trim boards on the sides.
5. Install 7-1/2" wide soffit panels under the overhang. Use 6d galv. nails.
6. Install 35-3/4" long 1x3 trim boards flush with each side of the loft door opening. Install a 50" long trim board across the top. *If door opening is cut out the siding will extend 3/4" below the top trim board.*
7. Install loft doors using 4" hinges and 1-1/4" long hinge screws. Install barrel bolt to the back of the right door. Drill a hole for the round shaft to drop into.

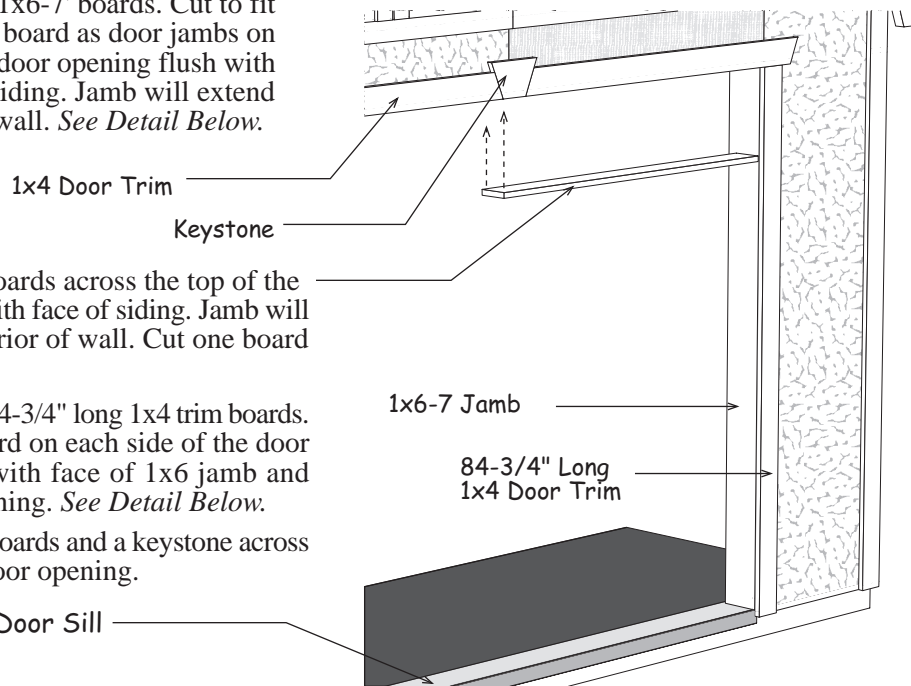




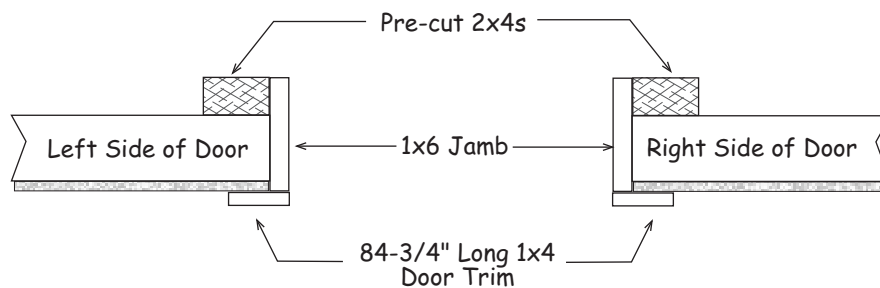
## Step 23 Install Door Jamb & Trim

 If you ordered the optional floor install the galvanized door sill on floor across door opening. Use pan head screws.

1. Locate (2) two 1x6-7' boards. Cut to fit and install each board as door jambs on the sides of the door opening flush with the face of the siding. Jamb will extend into interior of wall. *See Detail Below.*
  2. Install 1x6-4' boards across the top of the opening flush with face of siding. Jamb will extend into interior of wall. Cut one board to fit.
  3. Locate (2) two 84-3/4" long 1x4 trim boards. Install each board on each side of the door opening flush with face of 1x6 jamb and top of door opening. *See Detail Below.*
  4. Install (2) trim boards and a keystone across the top of the door opening.
- Optional Galv. Door Sill



5. Butt a pre-cut 2x4 to back of the 1x6 jamb inside the building. Cut length to be flush with top of jamb above door opening. Secure to wall framing with 10d sinkers. Repeat on other side of door opening. *See Detail Below.*
6. Install (2) two 2x4s on top of 1x6 jamb across door opening and top of previously install pre-cut 2x4s. Cut one board to fit.



## Tahoe 12'x 16' Packing List

Qty.	<i><b>2x4 Framing</b></i>	Size
12	Wall Plates	72 "
8	Wall Plates	68 1/2"
10	Loft Floor Joist	84 "
8	Wall & Tie Plate Material	48 "
2	Gable Studs	45 "
4	Gable Studs	40 3/4
4	Gable Studs	30 3/4
<i><b>2x6 Framing</b></i>		
6	Beam Material	72 "
4	Beam Material	36 "
<i><b>2x3 Framing</b></i>		
4	Gable Extension <i>top</i>	61 "
4	Gable Extension <i>side</i>	42 1/2"
2	Gable Extension Blocks	4 1/2"
<i><b>Miscellaneous Lumber</b></i>		
8	24 Blocks for Truss Jig	10" to 12"
2	OSB Door Header Filler	9" x 48"
2	OSB Door Header Filler	3-1/2" x 48"
2	7/16" Loft Floor Fillers	3-1/2" x 56"
18	Wood Gussets for Trusses	9" x 32"
<i><b>OSB Roof Sheathing</b></i>		
2	48" x 84"	2 13" x 60"
4	13" x 72"	
<i><b>LP Siding for Front Soffit</b></i>		
5	Pcs. 7-1/2" wide x 48" long	

Qty.	<i><b>Trim</b></i>	Size
4	1x4 Gable Trim	61 "
4	1x4 Gable Trim	42 1/2"
4	1x4 Lower Wall Trim	72 "
1	1x4 Door Trim	84 3/4"
2	1x4 Door Trim	48 3/4"
1	1x3 Loft Door Trim	50 "
2	1x3 Loft Door Trim	35 3/4"
1	1x6 9" Keystone top center trim	
<i><b>Pre-built Components</b></i>		
22	Pre-built Truss Halves	
6	3-1/2" x 84" Pre-built Soffit Boards	
2	21" x 35-1/2" Loft Door Frames	
<i><b>Hardware</b></i>		
5	lb. 10d Sinkers	42 7/16" Plyclips
5	lb. 6d Galv.	1 Bottle Glue
5	lb. 6d Common	38 Truss Hangers
		1 Door Hasp
		2 Barrel Bolts
14	1x4 Drive-on Plate	120 2-1/2" Screws
6	4" Door Hinges	64 Drywall Screws
<i><b>LP Primed Siding</b></i>		
2	Pcs. Gable Siding 48" wide x 55" angle cut	
4	Pcs. Gable Siding 24" wide x 36" angle cut	
2	Pcs. Door Header Siding 48" wide x 10-3/4"	
<i><b>Door Jamb</b></i>		
2	5-1/2" x 84"	2 5-1/2" x 48"

### Material Supplied by Local Home Center

12	pcs. LP Primed Exterior Siding	38	pcs. Pre-cut Wall Studs
7	pcs. 7/16" OSB Sheathing	4	pcs. 2x4 - 12" Boards
		2	pcs. 2x10 - 10" Boards