BEST BARNS
Quality Do-it-yourself Barn Kits

Assembly Book

Revised April 11, 2024

the Brandon

Building Size
12'x16'

Manufactured by RBS Holdings, LLC
205 Arlington Drive Greenville, PA 16125

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:**

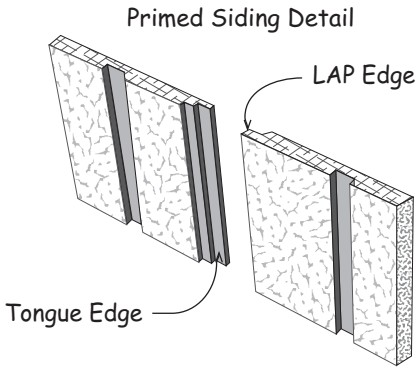
Windows are purchased separately

Required: Shingles or metal roofing, Drip Edge, Roofing Nails or Screws, Paint

Optional: Caulk, 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.

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

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

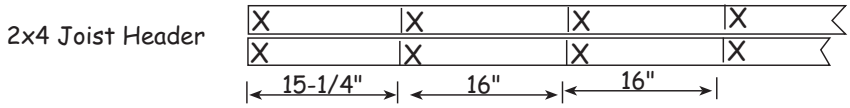
724-866-4357 - After hours and weekends

Email - questions@barnkits.com

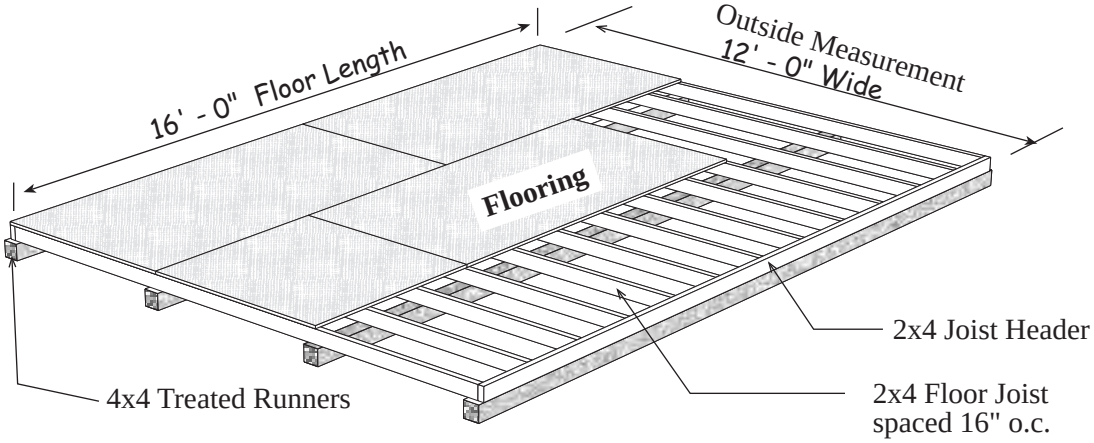
Typical Wood Floor System

Shown below is a typical wood floor. Depending on your area, the construction may have to be changed to meet local codes. When using a concrete slab, use the same overall foundation measurements. Install foam 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 (2) two 2x4 joist headers to 16' - 0". Layout for 16" on center joist spacing. 'X' marks where floor joist will be placed.

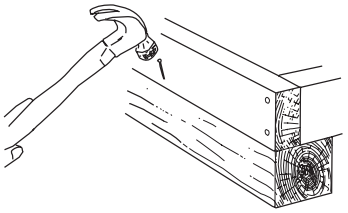


2. Cut 2x4-12' floor joist to 11'-9". *Treated lumber may be thicker than 1-1/2". Take this into account when cutting the length of floor joists. Shorten joist measurements if necessary to obtain 12'-0" building width.*



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.

Material Description	**12' x 16' shed**
2x4 Joist Headers	2 pcs. 16'
2x4 Floor Joist	13 pcs. 12'
4x4 Treated Runners	8 pcs. 8'
Flooring 5/8" or 3/4"	6 pcs. 4x8
Screw Floor Nails	2 lb. 8d
Galv. Box Nails	2 lb. 16d

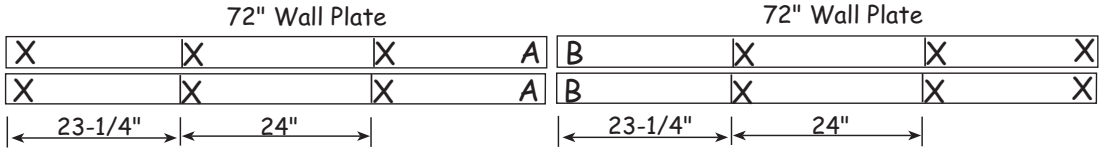


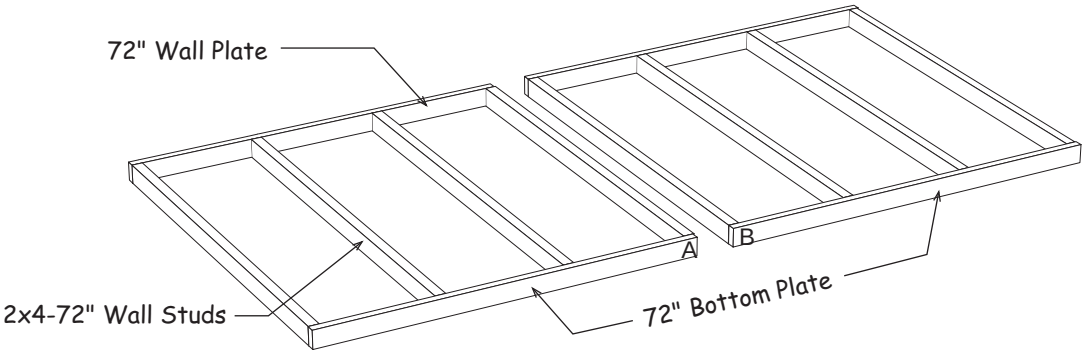
Nail 2x4 joist headers and floor joist to 4x4.

☞ ***Do not discard any material until construction is complete. Including short blocks of 2x4s.***

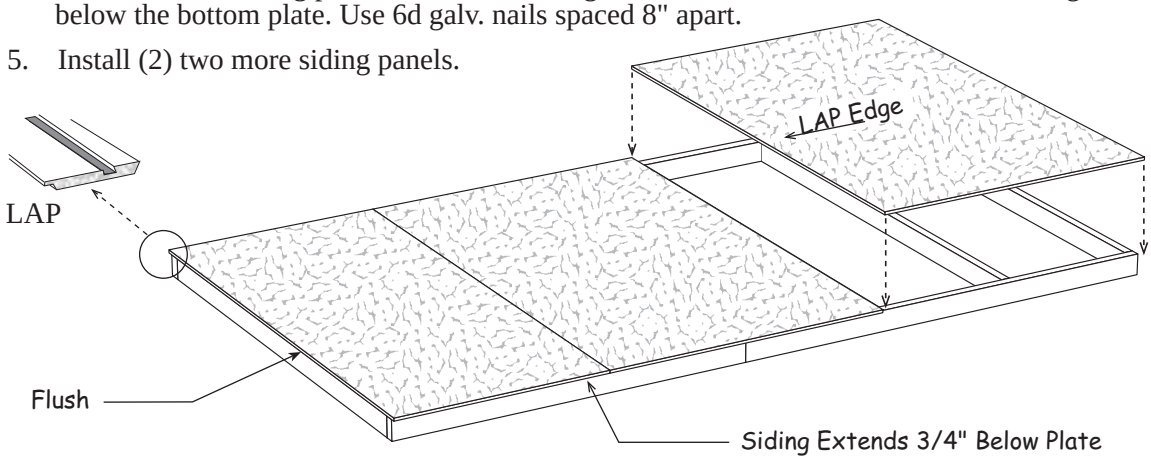
Step 1 Assemble 12' Long Side Walls

1. Gather (4) four 2x4-72" boards and position together then indicate with 'X' mark where the wall studs will be located. Mark the ends that will butt together with 'the letters A' and 'B'.





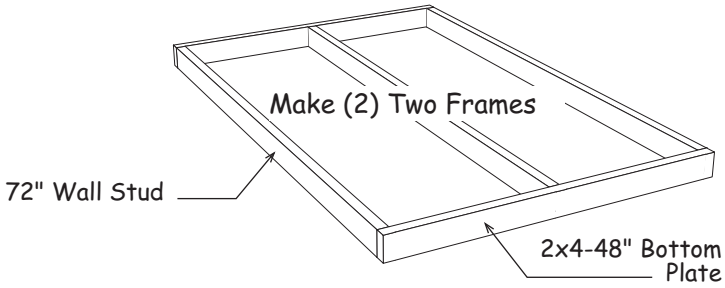
2. Install (8) eight 72" wall studs between the top and bottom plates. Use 10d sinkers, (2) two nails at each stud end. Nail both wall frames together with 10d sinkers.
3. Square wall frame. *Measure diagonally (corner to corner). The measurements will be the same when the wall is square.*
4. Install the first siding panel with the 'LAP edge' flush the end of the wall and extending 3/4" below the bottom plate. Use 6d galv. nails spaced 8" apart.
5. Install (2) two more siding panels.



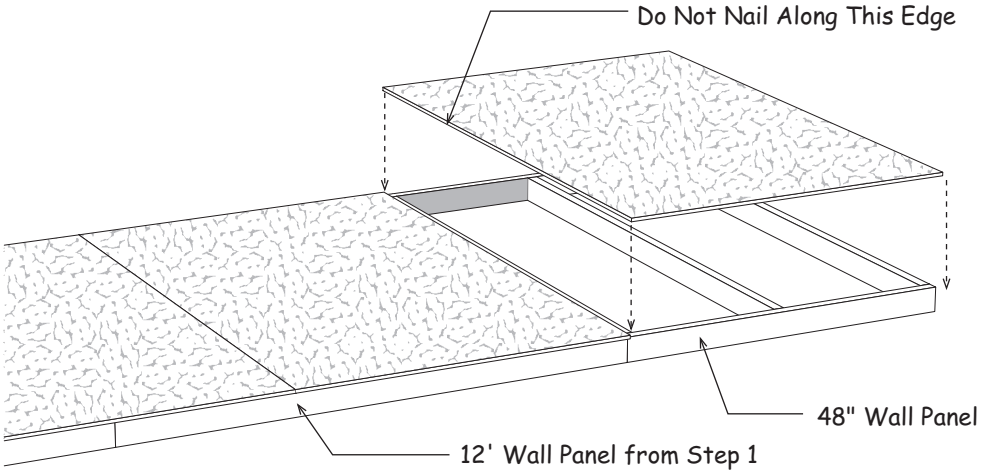
6. Repeat to assemble another side wall.

Step 2 Complete 16' Side Walls

1. Locate (2) two 48" long 2x4s and (3) three 2x4-72" wall studs.
2. Install (2) two 2x4-72" wall studs between wall plates at each end. Install (1) one stud in the center of the wall frame.
3. Repeat to assemble another 48" wall section.



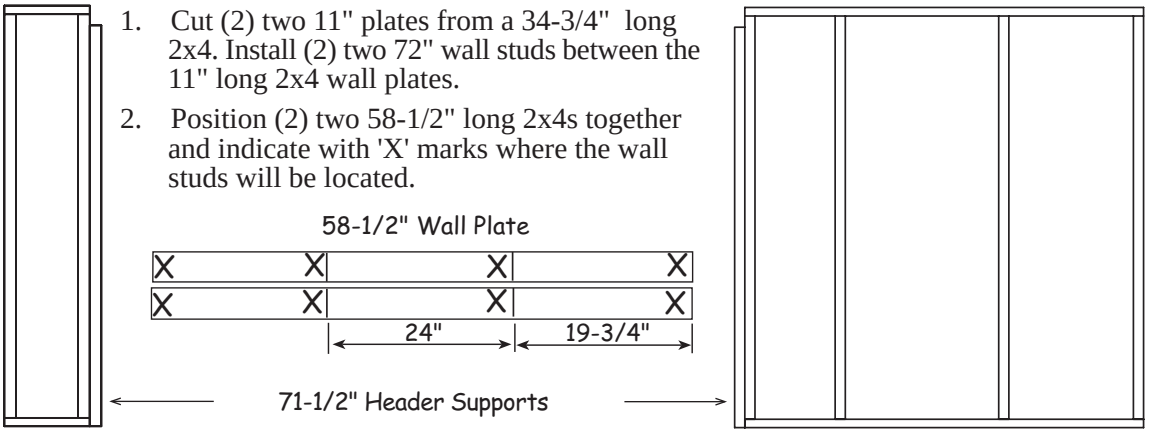
4. Select one of the 12' side walls assembled in **Step 1**. Butt the 48" wall frame against the wall with siding. DO NOT nail these frames together so they can be separated later.
5. Install a siding panel on the 48" frame. Cut panel flush with the end of the wall frame. DO NOT nail along the long edge of siding that overlaps the 12' wall frame. You can nail this edge after the wall panels are installed. Two separate walls are easier to handle when erecting kit.



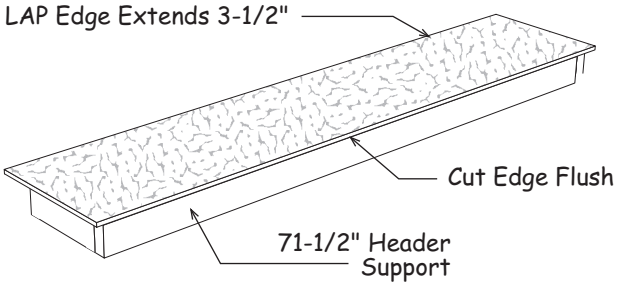
6. Repeat to apply siding to the other 48" wall frame.

Step 3 Assemble Door Wall - Offset Doors

☞ ***To position the door opening in the center of the wall, go to Step 4. To position the door opening on the right side of the front wall, flip the walls and apply siding to the opposite side of the wall frames.***



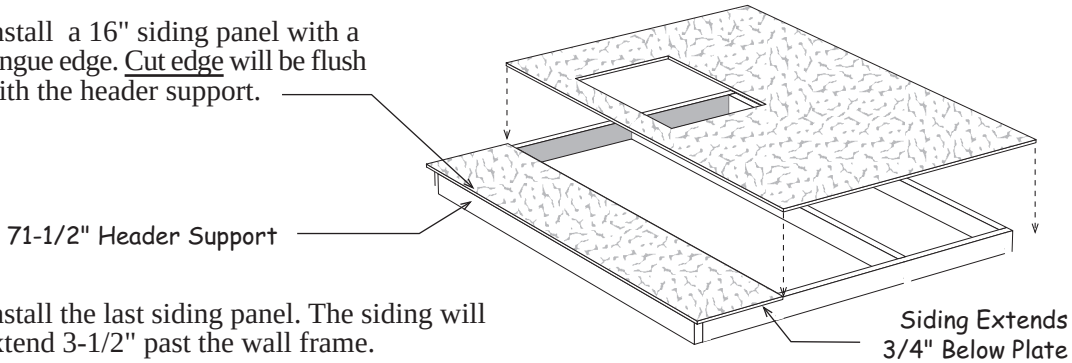
1. Cut (2) two 11" plates from a 34-3/4" long 2x4. Install (2) two 72" wall studs between the 11" long 2x4 wall plates.
2. Position (2) two 58-1/2" long 2x4s together and indicate with 'X' marks where the wall studs will be located.
3. Install (4) four 72" wall studs between (2) two 58-1/2" long 2x4 wall plates
4. Gather (2) two 2x4-72" 2x4s. Cut each board to 71-1/2" and install as a header support on each wall frame flush with bottom plate. Use 10d sinkers.



5. Select a 16" wide siding panel with a 'LAP' edge. Install cut edge flush with header support. The 'LAP' edge will extend 3-1/2" beyond the wall frame. Bottom edge will be 3/4" below the bottom plate.

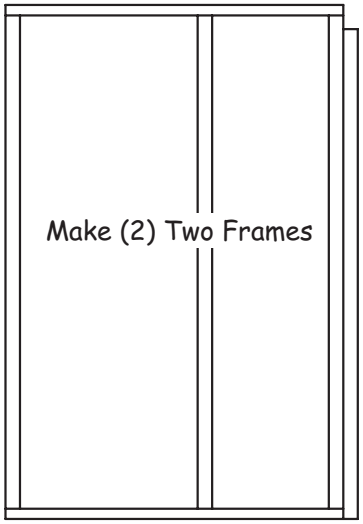
☞ If installing the optional window you can cut the opening in the siding. Instructions are packed in window box.

6. Install a 16" siding panel with a tongue edge. Cut edge will be flush with the header support.

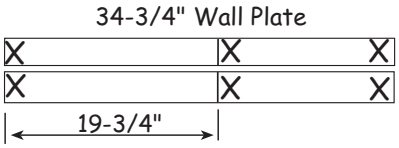


7. Install the last siding panel. The siding will extend 3-1/2" past the wall frame.

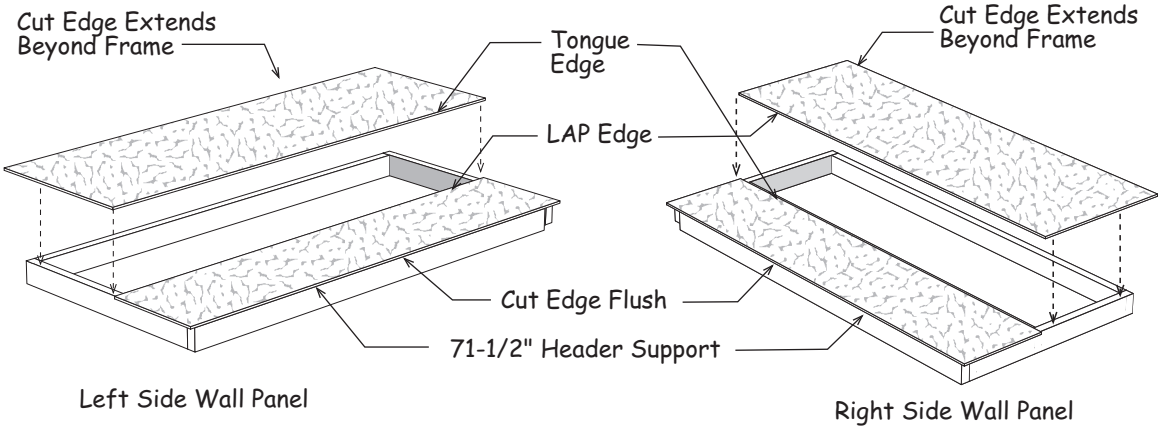
Step 4 Assemble Door Wall - Doors Centered



1. Locate (2) two 34-3/4" long 2x4s and position them together. Indicate with 'X' marks where studs will be located..



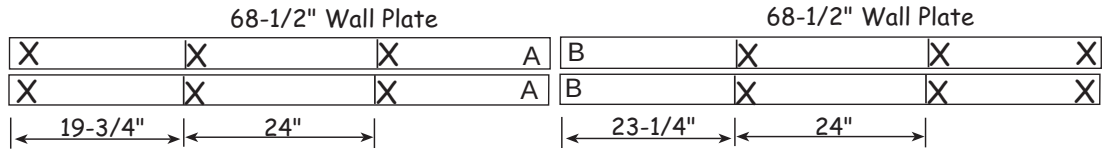
2. Install (3) three 72" wall studs between the 34-3/4" wall plates.
3. Locate (1) one 2x4-72" and cut to 71-1/2". Install as a header support on right side as shown and flush with bottom plate. Use 10d sinkers.
4. Locate (2) two 58-1/2" 2x4s and cut (1) one 34-3/4" plates from each. Repeat steps 2 and 3 to assemble another wall frame.
5. Select one frame and position so header support is on right.
6. Locate a 16" wide siding panel with a 'LAP' edge. Install this panel with the cut edge flush with the 2x4 header support. Bottom edge should be 3/4" below bottom plate. Only nail along cut edge until next panel is installed.
7. Cut a 48-3/4" wide siding panel in half lengthways.
8. Select cut panel with the 'Tongue' edge. Install this panel so cut edge extends 3-1/2" beyond the end of the frame and tongue edge under the 16" panel. The siding should extend 3/4' below the bottom plate. Nail both siding panels to frame.

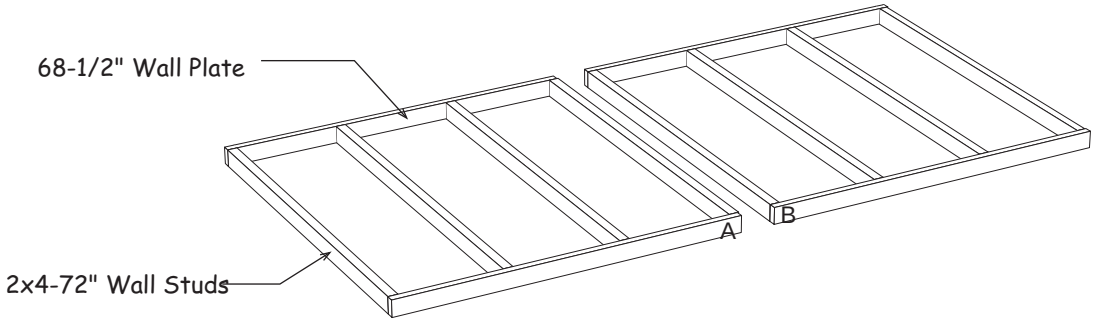


7. Locate a 16" wide siding panel with a 'Tongue' edge and the remaining 24" wide cut panel. Install these on remaining frame. **Make sure header support is oriented to the left.**

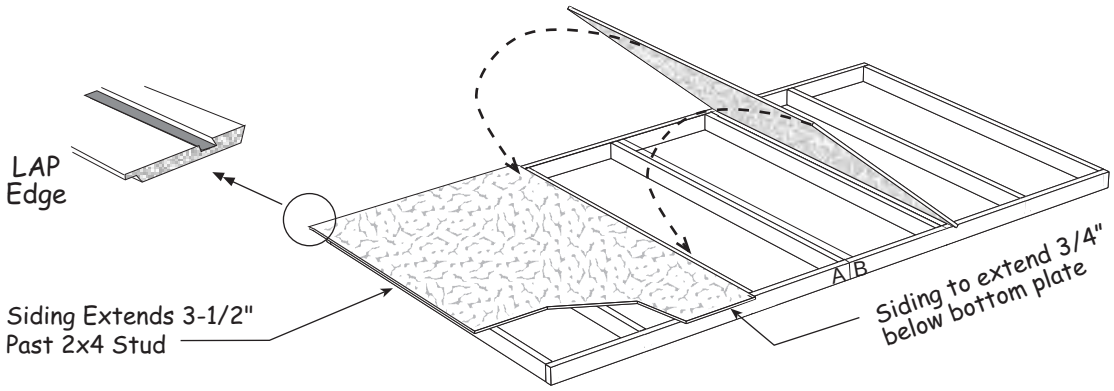
Step 5 Assemble 12' Back Wall

1. Gather (4) four 2x4-68-1/2" boards an position together then indicate with 'X' marks, where the wall studs will be located. Mark the ends that will butt together with the letters 'A' and 'B'.



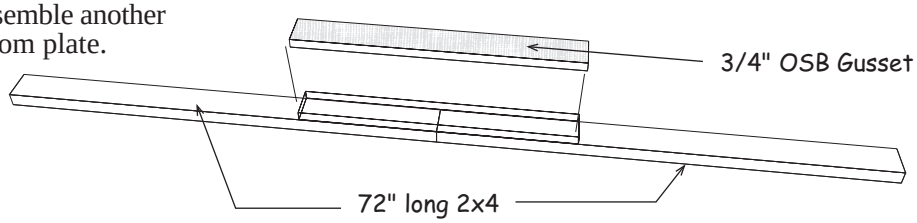


2. Install (8) eight 72" wall studs between the top and bottom plates. Assemble wall frames with 10d sinkers, (2) two nails at each stud end. Nail both wall frames together with 10d sinkers.
3. Square wall frame.
4. Install the 1st siding panel with the 'LAP' edge extending 3-1/2" past the wall frame. The bottom will extend 3/4" below the bottom plate.
5. Install (2) two more siding panels. Cut the last panel to extend 3-1/2" beyond the wall frame.

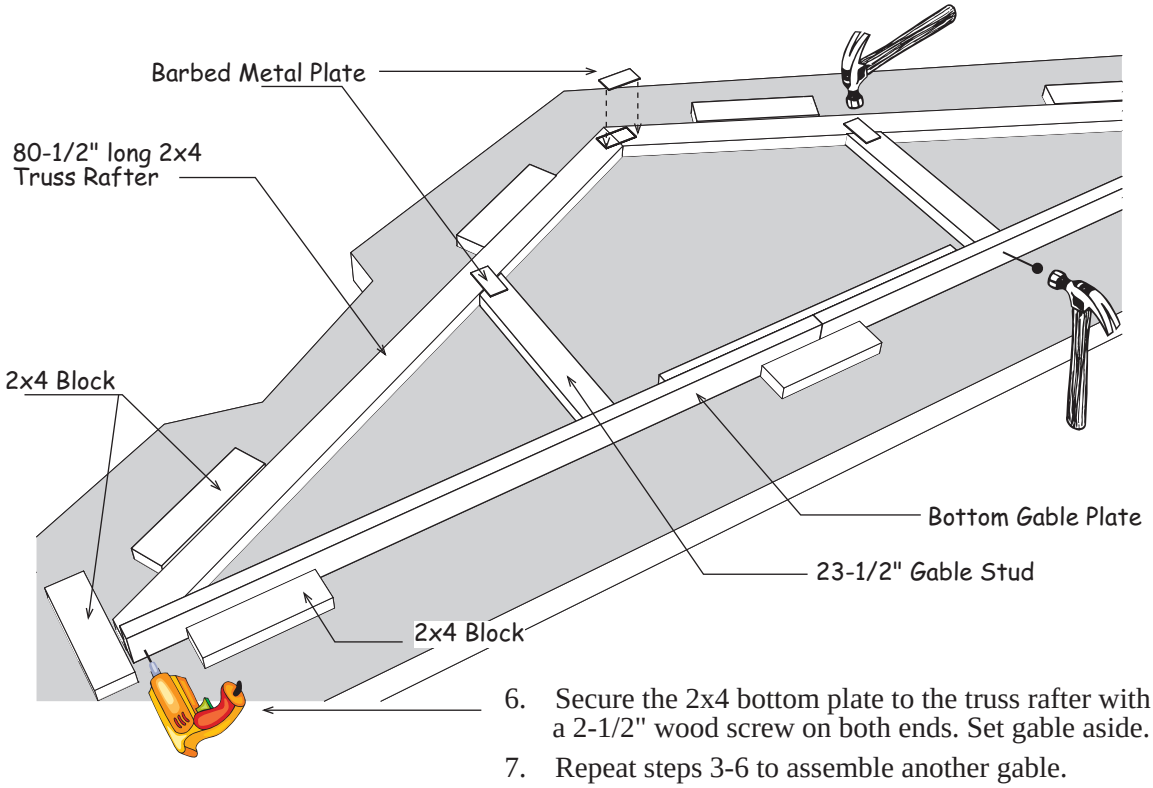


Step 6 Assemble Roof Gables

1. Butt (2) two 72" long 2x4s together and secure them with a 3-1/2" x 31-3/4" long OSB gusset across the top where they butt together. Use (12) twelve 6d common nails. This will be used as the bottom plate on the roof gables.
2. Repeat to assemble another 12' long bottom plate.



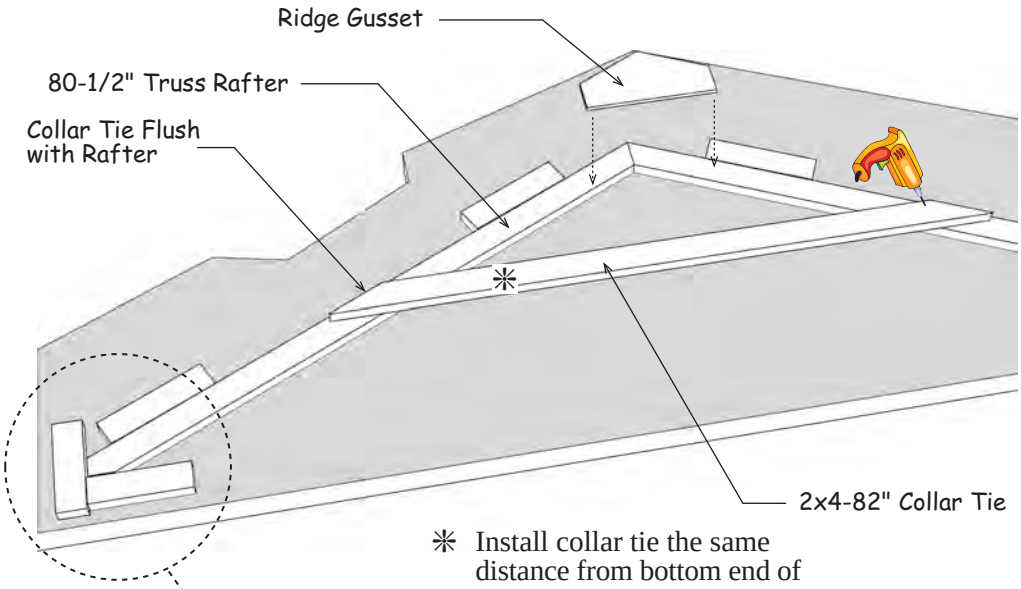
3. Place the bottom gable plate on the floor along with (2) two 80-1/2" long 2x4 truss rafters as shown below. Bottom plate will be on edge. There are short 2x4s, *that may have an angle on one end,* supplied in the kit. Use these to hold the truss rafter and bottom gable plate together by temporarily screwing the blocks to the floor using 2-1/2" screws. This will ensure that the gable frames and the trusses, *assembled next*, are identical.
4. Secure the top of the truss rafters together with a 1"x4" barbed metal drive-on plate.
5. Install (2) two 23-1/2" gable studs with angle cut at one end. Nail through the bottom plate with 10d sinkers and secure the top with barbed metal drive-on plates.



6. Secure the 2x4 bottom plate to the truss rafter with a 2-1/2" wood screw on both ends. Set gable aside.
7. Repeat steps 3-6 to assemble another gable.

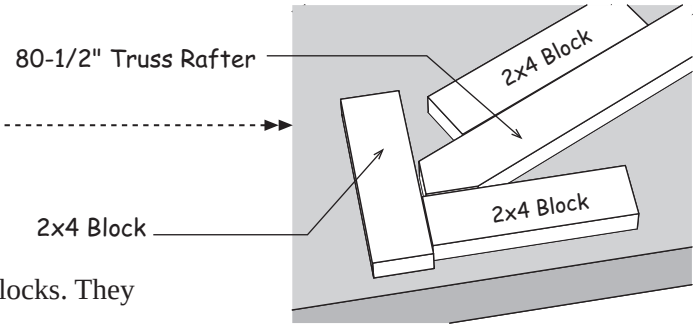
Step 7 Assemble Roof Trusses

1. Place (2) two 80-1/2" long 2x4 truss rafters and a 82" long collar tie together as shown below. The collar tie has an angle cut on both ends. Reposition the lower 2x4 blocks to hold the truss rafters in place. See '**Detail B**'.
2. Secure the 2x4 truss rafters at the top with a 8" x 16" wood gusset. Nail the gusset to the 2x4s with (14) fourteen 6d common nails,
3. Secure the 2x4 collar tie with (4) four 2-1/2" long wood screws at each end. Tip: Pre-drill holes with an 1/8" bit to prevent wood splitting at ends.
4. Turn this truss over and apply a wood gusset to the opposite side at the ridge.
5. Repeat to assemble (6) six more trusses.



✳ Install collar tie the same distance from bottom end of rafters.

Detail 'B'

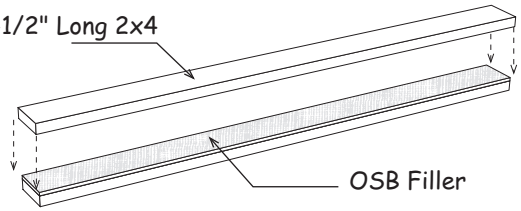


6. Remove and save the short 2x4 blocks. They will be used in a later step.

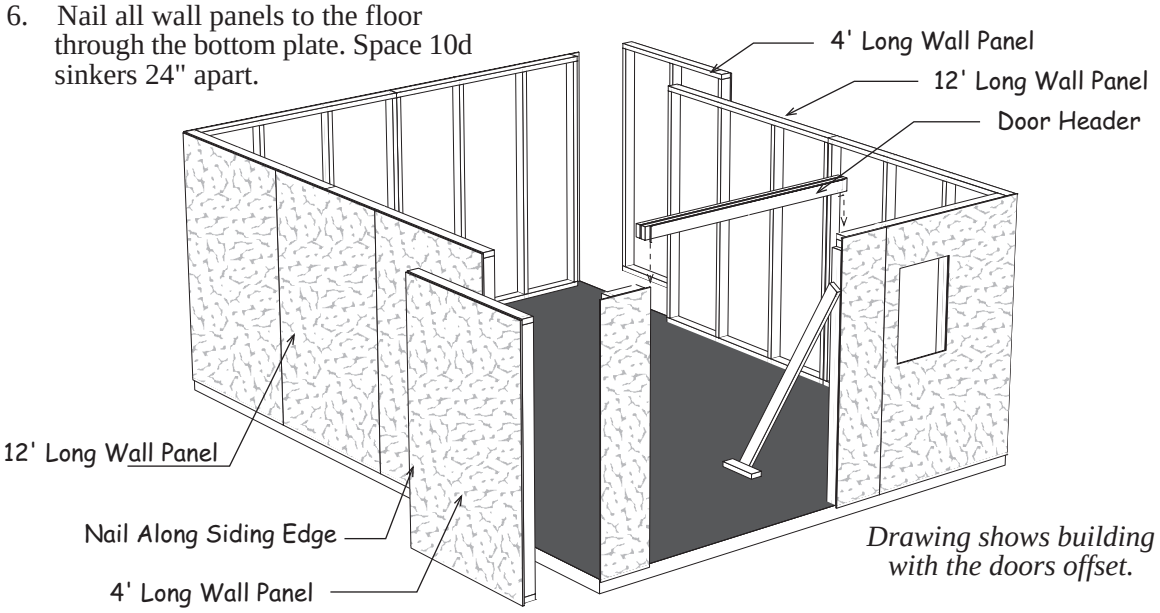
Page intentionally left blank

Step 8 Set Walls

1. Assemble door header using (2) two 67-1/2" long 2x4 boards and 3-1/4" x 67-1/4" OSB filler panel. Nail header together with (8) eight 10d sinkers on each side.

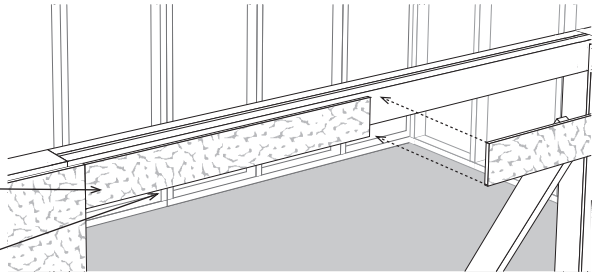


2. Erect wall panels. **IMPORTANT make sure walls are plumb and square.** Secure together at the corners using (4) four 10d sinkers per corner.
3. Nail siding on each 4' wall panel to the 12' wall panels. Nail along siding edge where it overlaps at corners.
4. Install the 2x4 door header between the front wall panels. Nail through the wall studs into the ends of the header. Toenail into the top wall plates.
5. Temporarily install (2) two 2x4-72" boards at both sides of the door opening to hold the wall straight. These boards will be used later for tie plates.
6. Nail all wall panels to the floor through the bottom plate. Space 10d sinkers 24" apart.



Drawing shows building with the doors offset.

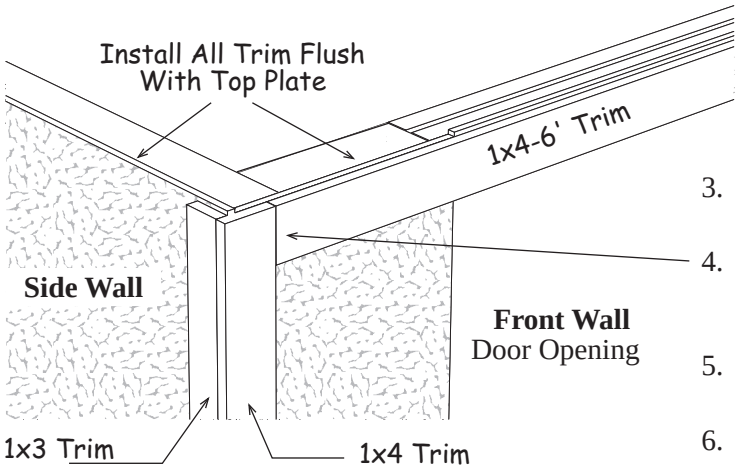
7. Install (2) two 4-1/4" siding panels over the door header. The siding should extend 3/4" below the door header. Cut length to fit. Wall trim, installed later, will hide where the siding butts the front wall siding.



Step 9 Install Trim

☞ *Tip; Paint the siding and trim boards before installing the trim.*

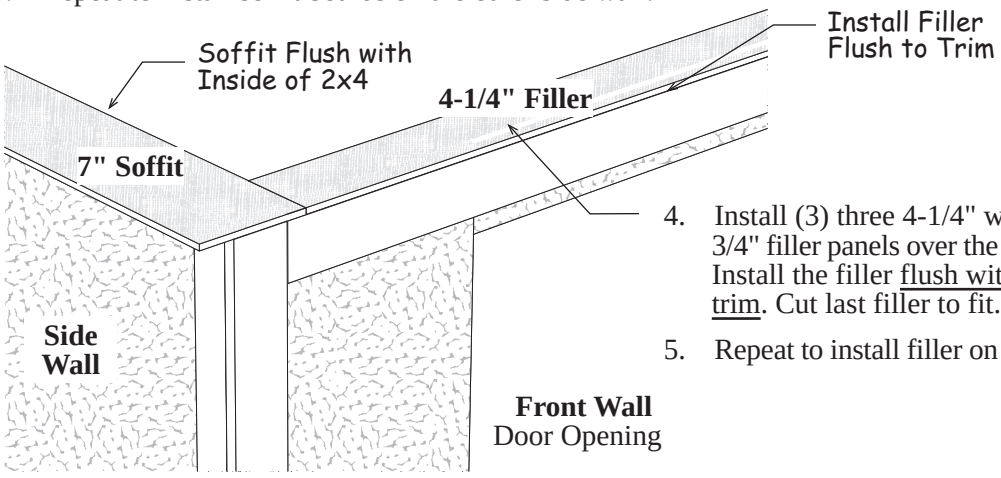
1. Install (2) two 75-3/4" long 1x3 corner trim boards to the side wall flush with the top 2x4 wall plate and flush with siding on the front and back walls. Use 6d galv. nails, spaced 12" apart.
2. Install a 75-3/4" long 1x4 trim board to the front wall flush with wall plate and with 1x3 trim.



3. Repeat above steps on opposite side wall and front corner.
4. Butt a 1x4-6' trim board against 1x4 corner trim and flush with top plate. Nail along top.
5. Cut a second 1x4-6' trim board to finsh at opposite corner.
6. Repeat to install trim on back wall.

Step 10 Install Primed Soffit and Filler

1. Locate (1) one 7" wide x 48-3/4" long siding panel and cut in half (save one half for other side wall). Install one half over the side wall with the primed side facing down. Cut edges should be flush with the inside of the top 2x4 wall plate and flush with the trim on the front wall. Tack the soffit with a couple 6d common nails. Installing 2x4 tie plates in a later step will provide more nailing.
2. Install (4) four more soffit panels. Cut the last soffit flush with the back wall trim.
3. Repeat to install soffit boards on the other side wall.

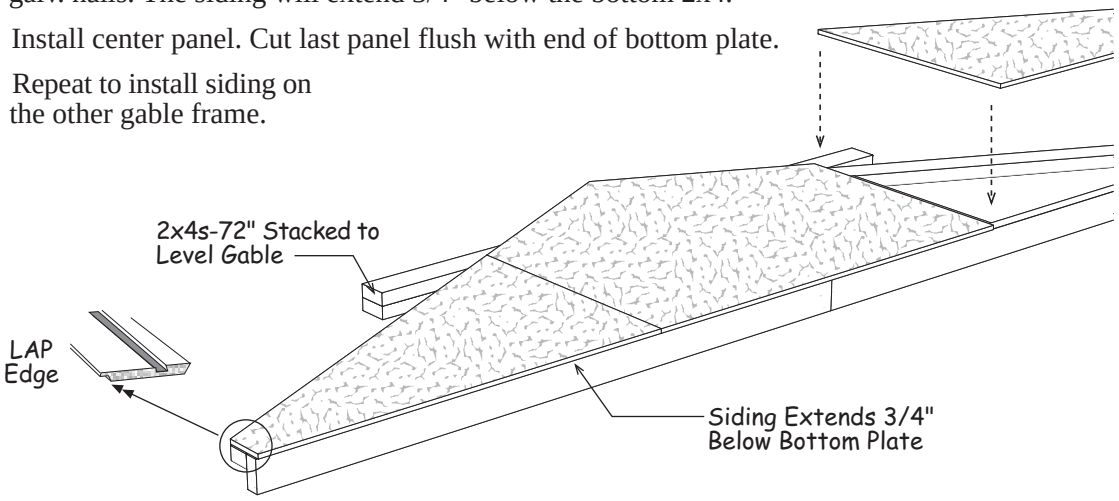


4. Install (3) three 4-1/4" wide x 48-3/4" filler panels over the front wall. Install the filler flush with the 1x4 trim. Cut last filler to fit.
5. Repeat to install filler on back wall.

Step 11 Install Siding on Gables

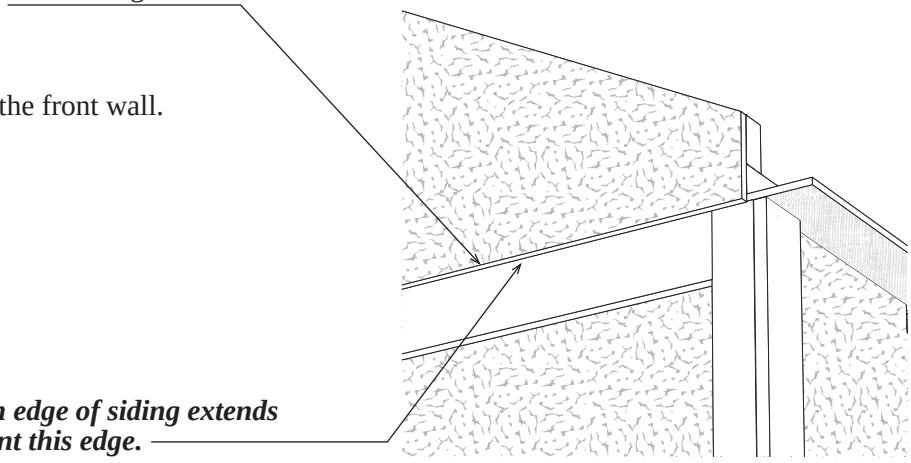
☞ *Gable siding is factory cut to be installed either working from left to right or right to left. Regardless of the direction always begin with the 'LAP' Edge flush with end of the gable.*

1. Select one of the gable frames. Turn the gable over so bottom plate is on edge on floor. Support gable studs and rafters with (2) two 2x4-72" boards stacked. This will give you a solid surface when nailing siding.
2. Install a gable siding panel with the 'LAP' edge flush with the end of of bottom plate. Use 6d galv. nails. The siding will extend 3/4" below the bottom 2x4.
3. Install center panel. Cut last panel flush with end of bottom plate.
4. Repeat to install siding on the other gable frame.



Step 12 Install Gables

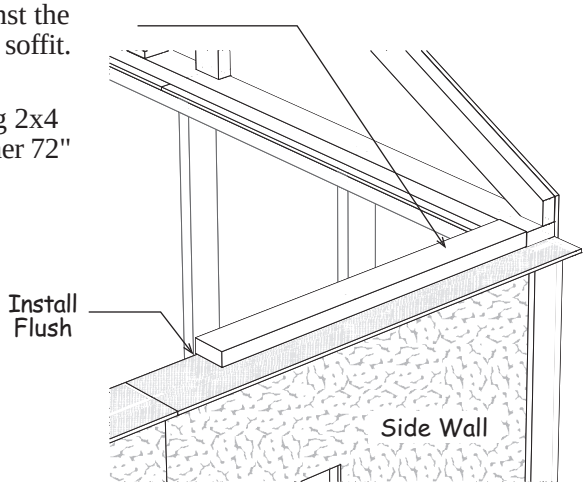
1. Install a gable on the rear wall. The gable siding will extend over the 1x4 trim on the lower wall. Secure gable to wall by nailing through the gable plate with 10d sinkers. Nail siding along the 1x4 trim board with 6d galv. nails.
2. Install gable on the front wall.



Important: Bottom edge of siding extends over 1x4 trim. Paint this edge.

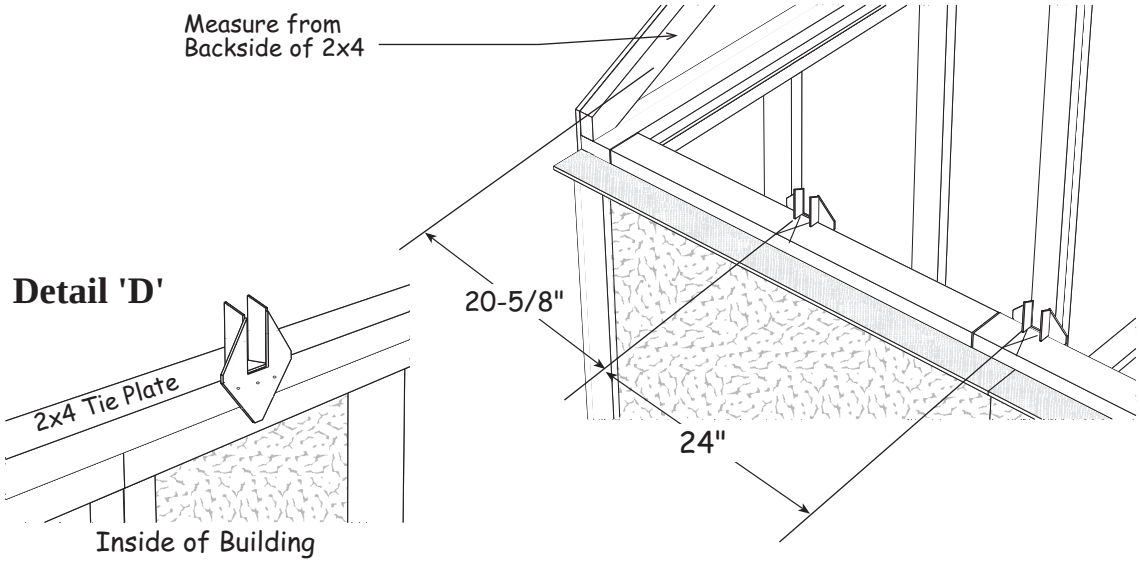
Step 13 Install 2x4 Tie Plates on Side Walls

1. Install a 4' long 2x4 over a side wall, against the front gable plate and flush with the inside of soffit. Use 10d sinkers.
2. If used for a wall brace, remove a 72" long 2x4 and install this next to 4' tie plate. Cut another 72" 2x4 to fit against rear gable.
3. Install tie plates on the opposite side wall.



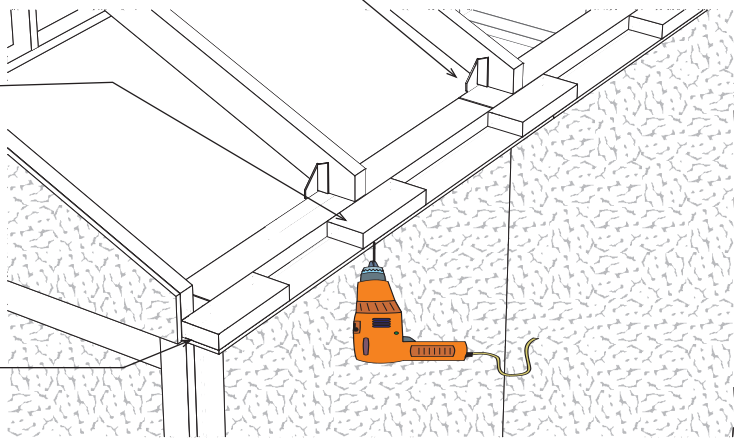
Step 14 Layout Roof Trusses

1. Layout the truss spacing from the left side wall of the building. Measure from the backside of the 2x4 gable frame when marking the location of the first truss. Continue 24" spacing to other gable. **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.
2. Install metal hangers to the tie plate with hanger nails . The opening should line up with the 'X' mark, the bottom of the opening, flush with the 2x4 tie plate. **Detail 'D'**.



Step 15 Set Roof Trusses and Soffit Blocks

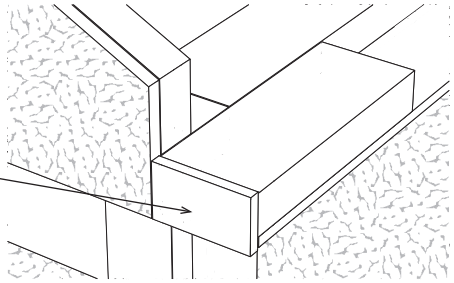
1. Set roof trusses. Secure trusses to metal hangers with hanger nails.



2. Install short 2x4 blocks at both ends of each truss. Secure 2x4 blocks to the soffit panel using (2) two 1-1/2" long exterior screws.

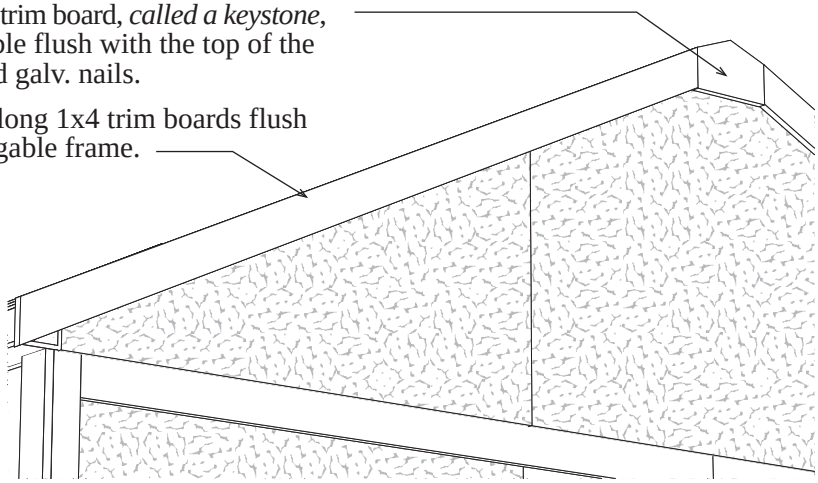
3. Install a 2x4 block at each end of the soffit, flush with the 2x4 gable frame.

4 Install small primed siding fillers, *packed with the hardware*, over the 2x4 soffit blocks. Siding fillers will be flush with the gable siding. Use 6d galv. nails.



Step 16 Install Rear Gable Trim

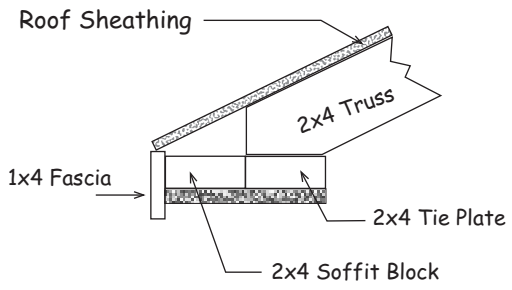
1. Install a 8-1/2" long trim board, *called a keystone*, at the top of the gable flush with the top of the gable frame. Use 6d galv. nails.
2. Install (2) two 81" long 1x4 trim boards flush with the top of the gable frame. Use 6d galv. nails.

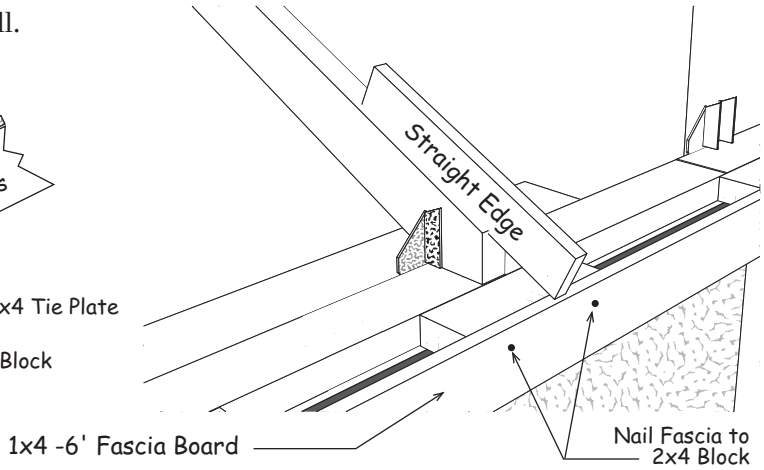


Step 17 Install 1x4 Fascia & Roof Sheathing

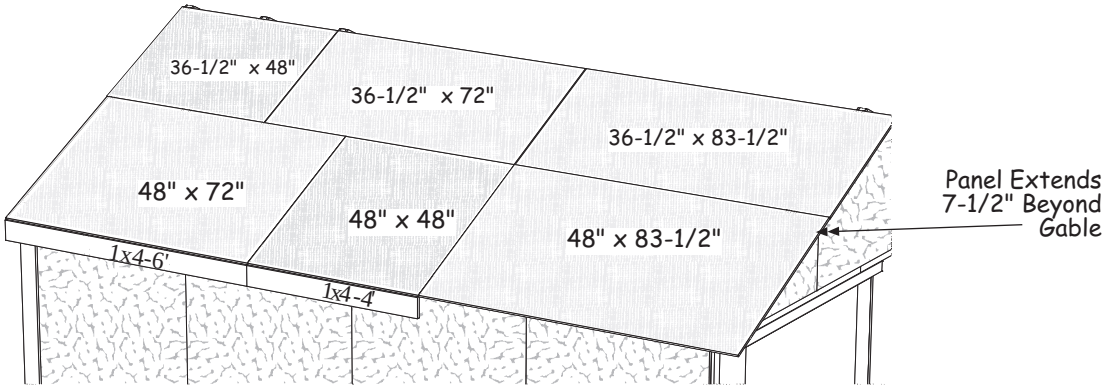
1. Starting at the rear of the building, install a 1x4-6' fascia board against the rear gable trim. Install the fascia so the bottom edge of the roof sheathing will rest on the edge of the 1x4. **See Detail 'E'**. Use a straight edge to align the 1x4 board with the top of the trusses.Use 6d galv. nails.
2. Repeat on opposite side wall.

Detail 'E'

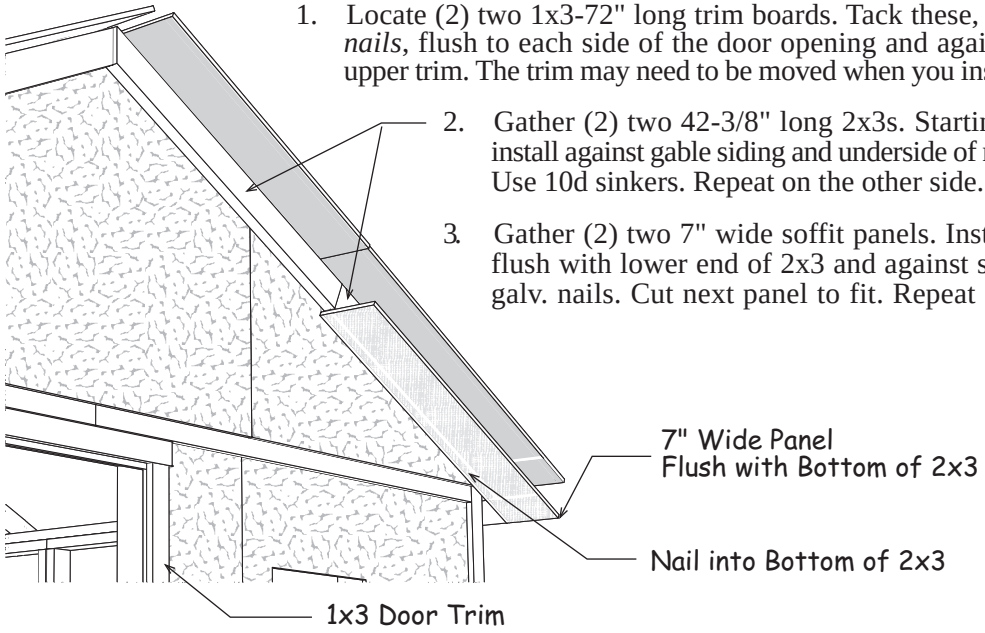




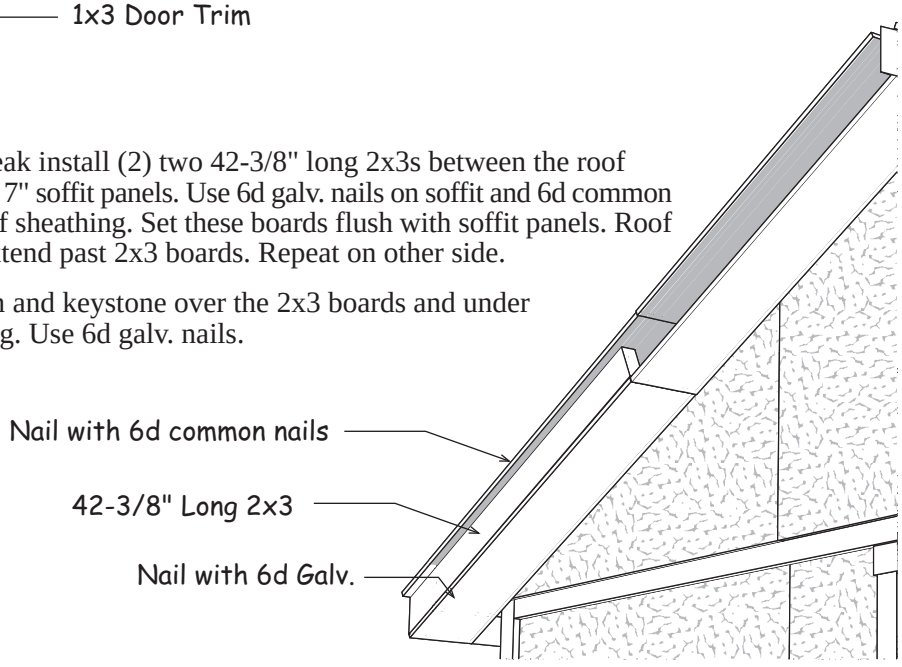
3. Butt a 1x4-4' fascia board to the 6' board. See sheathing drawing below. Install another1x4-4' fascia on the opposite side.
4. Do not install last fascia boards until a later step.
5. Install roof sheathing per layout below. Starting at rear of building install a 48"x72" OSB roof panel flush with 1x4 gable trim. Plumb each truss and gables. Make sure the sheets meet at center of truss. Use 6d common nails spaced 12" apart. The top row of roof sheathing will be about 1" below the ridge to allow for optional ventilation. **Important:** Make sure the roof sheathing extends 7-1/2" past the siding on the face of the gable.



Step 18 Install Front Gable Soffit and Door Trim

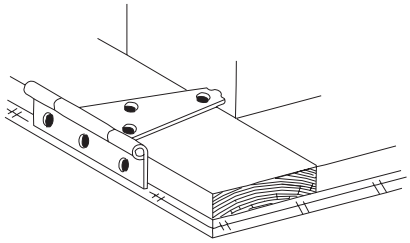


1. Locate (2) two 1x3-72" long trim boards. Tack these, *with a couple nails*, flush to each side of the door opening and against bottom of upper trim. The trim may need to be moved when you install the doors.
2. Gather (2) two 42-3/8" long 2x3s. Starting at the peak install against gable siding and underside of roof sheathing. Use 10d sinkers. Repeat on the other side.
3. Gather (2) two 7" wide soffit panels. Install first panel flush with lower end of 2x3 and against siding. Use 6d galv. nails. Cut next panel to fit. Repeat on other side.

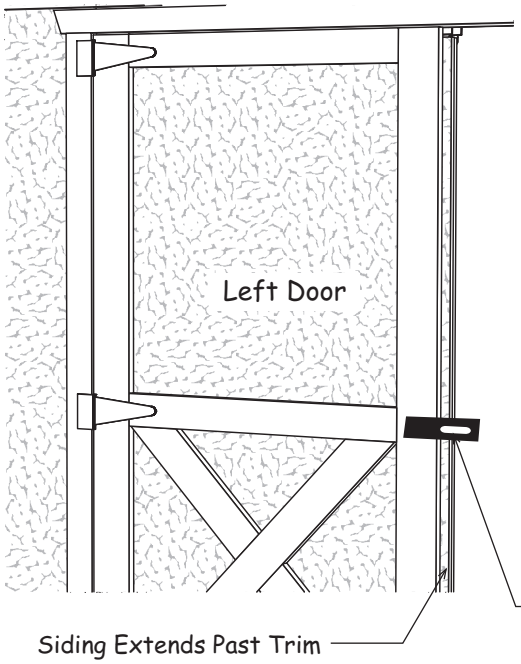


4. Starting at the peak install (2) two 42-3/8" long 2x3s between the roof sheathing and the 7" soffit panels. Use 6d galv. nails on soffit and 6d common nails through roof sheathing. Set these boards flush with soffit panels. Roof sheathing will extend past 2x3 boards. Repeat on other side.
5. Install gable trim and keystone over the 2x3 boards and under the roof sheathing. Use 6d galv. nails.
6. Return to side walls and cut the last 1x4-7' fascia boards to fit.

Step 19 Install Doors & Hardware



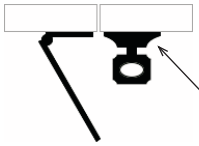
1. Lay the left door with the trim facing up. The siding on the left door extends past the door trim. See detail below.
2. Install 5" hinges to the left side of the door frame. To position the hinge properly, hold the rectangular plate against the frame. Use 1-1/4" black screws.
3. Install hinges to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

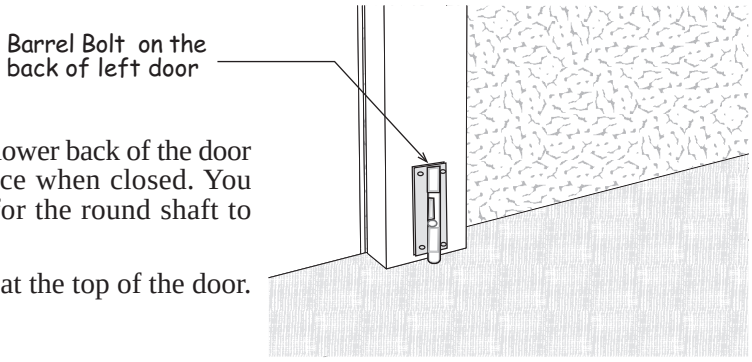


4. Before fastening the hinges to the side trim, temporarily prop the doors in the opening. Leave a space at the top and bottom of the doors and between the doors and the side trim to allow room for the doors to expand due to humidity.

   If your door opening is out of square, the space around the doors will not be even. You can remove and re-position 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. Determine position of hinges and install to side trim with 2" screws.
6. Install door hasp on double doors. When properly installed the hasp will fold in half to receive locking latch and the screw heads will be covered.





7. 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.
8. Install another barrel bolt at the top of the door.

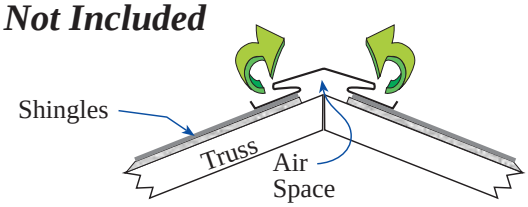
Material Packing List

7	Collar Ties	2x4	82"
18	Truss Rafters	2x4	80-1/2"
54	Wall Studs	2x4	72"
4	Wall Plates	2x4	68-1/2"
2	Wall Plates	2x4	67-1/2"
2	Wall Plates	2x4	58-1/2"
2	Wall Plates	2x4	34-3/4"
6	Wall Plates	2x4	48"
4	Gable Studs	2x4	23-1/2"
8	Gable Framing	2x3	42-3/8"
14	Truss Gussets	7/16"	8" x 16"
13	Soffit Panels	3/8" x	7" x 48"
8	Filler Panels	3/8"x 4-1/4" x 48"	
14	2x4 Metal Truss Hangers		
2	Fascia Boards	1x4 x	84"
2	Fascia Boards	1x4 x	72"
2	Fascia Boards	1x4 x	48"
12	Siding Panels	48" x 75-3/4"	
2	Siding Panels	16" x 75-3/4"	
2	Gable Siding Panel	48" x 40"	
4	Gable Siding Panel	48" x 28"	
4	Roof Sheathing	48" Long	
4	Roof Sheathing	72" Long	
4	Roof Sheathing	83-1/2" Long	
2	OSB Filler	3-1/4" x 67-1/4"	

3	1 lb.	box	10d	Sinkers
2	1 lb.	box	Hanger Nails	
5	1 lb.	box	6d	Galv.
3	1 lb.	box	6d	Common
50	ea.	1-1/2"	Exterior Screws	
80	ea.	2-1/2"	Deck Screws	
6	ea.	5"	Door Hinges	
1	ea.	4-1/2"	Door Latch	
2	ea.	6"	Barrel Bolts	
16	ea.	3/4"	Pan Head Screws	
25	ea.	2"	Hinge Screws	
25	ea.	1-1/4"	Hinge Screws	
6	ea.	1x4	Metal Plates	
2	ea.	OSB Gussets 3-1/2" x 32"		
2	ea.	1x6 Keystone		8-1/2"
4	ea.	1x4 Gable Trim		81"
4	ea.	1x4 Corner Trim		75-3/4"
4	ea.	1x3 Corner Trim		75-3/4"
4	ea.	1x4 Wall Trim		72"
2	ea.	1x3 Door Trim-*sides*		72"
1	ea.	1x3 Board (*not used*)		72"
2	ea.	Pre-built Door 32" x 71-1/2"		
4	ea.	Gable Siding Fillers 2"x3"		
24	ea.	2z4 Truss Jig Blocks 5" to 7"		

Roofing Material - Not Included

Qty.		
10	bdl.	Roof Shingles
8	pcs.	Roof 'drip' Edge 10'



Optionally install ridge vent