![Best Barns USA — Quality Do-it-yourself Barn Kits]

Best Barns
Assembly Book
revised September 28, 2022

the Cypress R   10' x 16'

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:**

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
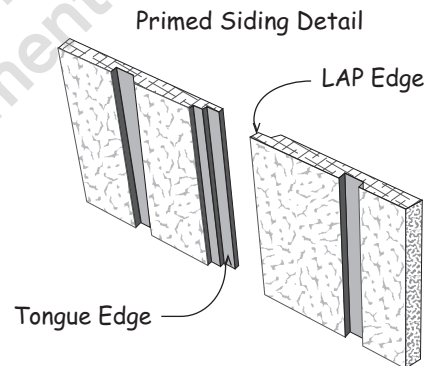Wall Plate - Top and bottom 2x4s used to frame walls
Tie Plate - 2x4s connecting wall sections together
Header - Spans top of door opening
OSB - Oriented Strand Board
LAP - Edge of siding that overlaps Tongue
Tongue - Edge of siding that is overlapped

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
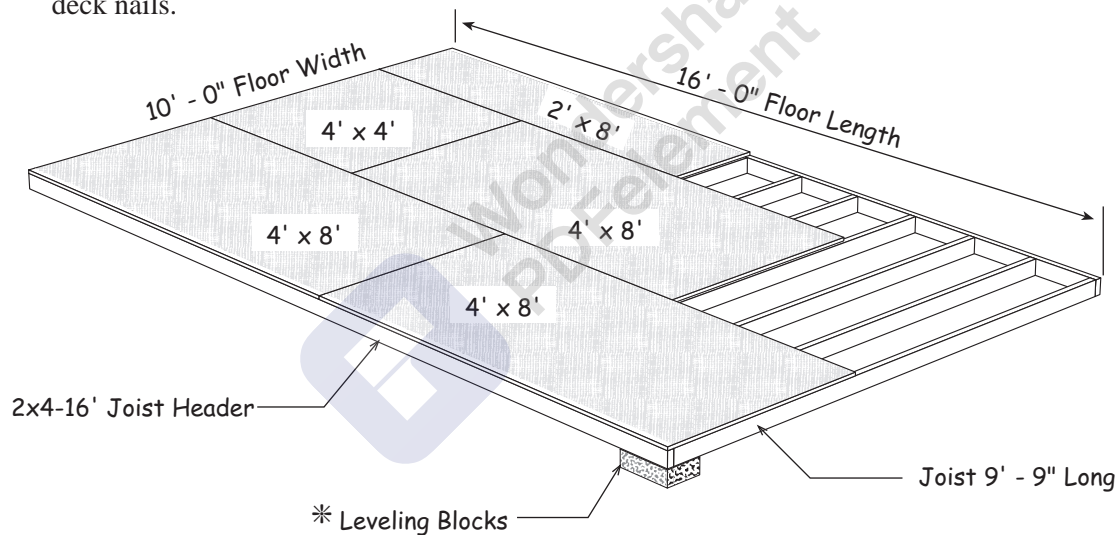
Email - questions@barnkits.com

Construction Details for Optional Floor System

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. Treated lumber is not cut to exact length. Cut (2) two 2x4-16' boards to 16'-0".
   Layout for 16" on center joist spacing. 'X' marks where floor joist will be placed.

Joist Header

X | X | X | X
X | X | X | X
|← 15-1/4" →| ← 16" →|← 16" →|
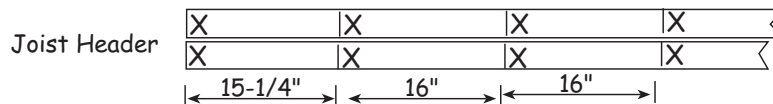
2. Cut the 2x4-10' floor joist to 9'-9". *Treated lumber may be thicker than 1-1/2". Take this into account when cutting the length of floor joists. Shorten joist measurements if necessary to obtain 10'-0" building width.*

3. Install the floor joist, *over the 'X' marks*, between the 16' long joist headers. Use 16d galv. deck nails.

10' - 0" Floor Width

16' - 0" Floor Length

4' × 4'

2' × 8'

4' × 8'

4' × 8'

4' × 8'

2x4-16' Joist Header

Joist 9' - 9" Long

✳ Leveling Blocks

✳ *If necessary use bricks, patio stones or similar material to level or provide additional support to the floor. If your ground has low areas consider adding gravel and or 4x4 treated timbers to rest the floor on. If you use 4x4 timbers you will need (3) three pieces 16' long.*

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 if the floor is square (226-1/2").

Material Description	10' x 16' Floor	
2x4　Treated Headers	2 pcs.	16'
2x4　Treated Floor Joist	13 pcs.	10'
Flooring 5/8"　4x8	5 pcs.	4x8
8d Screw Floor Nails	2 lb.	8d
16d Galv. Box Nails	2 lb.	16d

Step 1   Assemble Roof Gables and Trusses

☞ *Gables will have (1) one gusset applied. Trusses will have (2) two gussets.*

Tip: If possible, temporarily screw 2x4 blocks to the floor using 2-1/2" deck screws. Short 2x4s, *that may have an angle on one end*, supplied in the kit for this purpose. This will secure the gable and truss boards in position so all the trusses will be assembled the same.

1. Place (2) two 62" long 2x4 boards with angled ends together as shown below to make a gable. Hold in place with 2x4 blocks as shown. Make sure the gable measures 10'-0" wide when assembled to fit properly when installed

2. Secure the tops together with a 24" wide OSB gusset. Nail the gusset to the 2x4s with (14) fourteen 6d common nails. Angle nails slightly so nails do not protrude through the 2x4 boards.

3. Repeat to assemble (1) one more gable for a total of (2) two gables.

4. Select (2) two 62" long 2x4 boards with angled ends to make the first truss. Secure the tops together with a 24" wide OSB gusset. Turn truss over and install another 24" wide gusset.

5. Repeat steps to assemble (6) six more trusses.

2x4-62" Boards

2x4 Block

2x4 Blocks

OSB Gusset
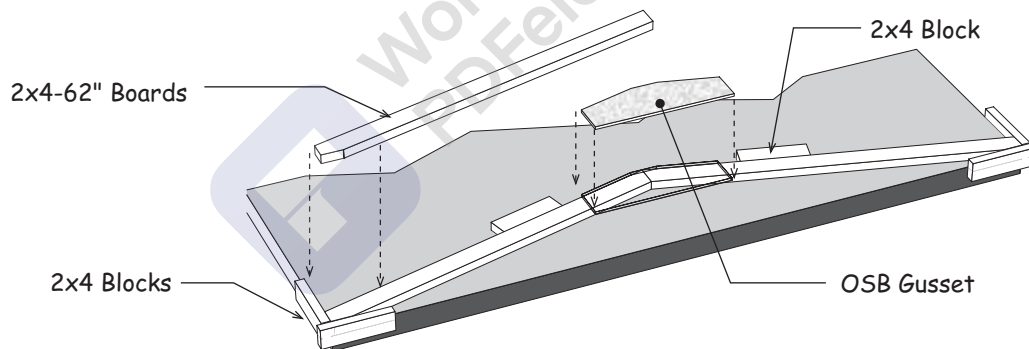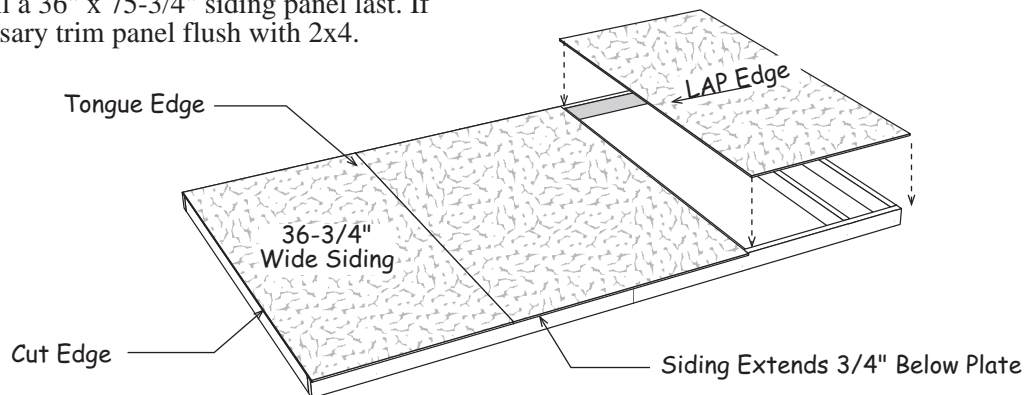
Step 2A   Assemble End walls

1. Position (4) four 60" 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'.
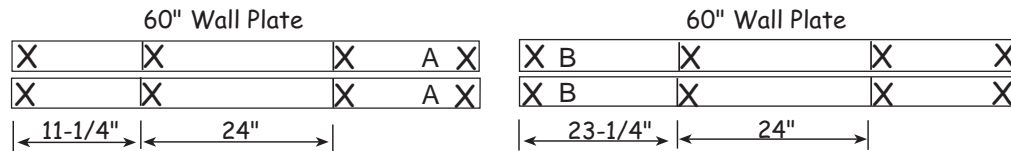
60" Wall Plate

60" Wall Plate

11-1/4"   24"

23-1/4"   24"

2. Install 72" wall studs between the top and bottom plates. Assemble wall frames with 10d sinkers. Use (2) two nails at end of each wall stud.

3. Nail both wall frames together with (4) four 10d sinkers on each side.

60" Wall Plate
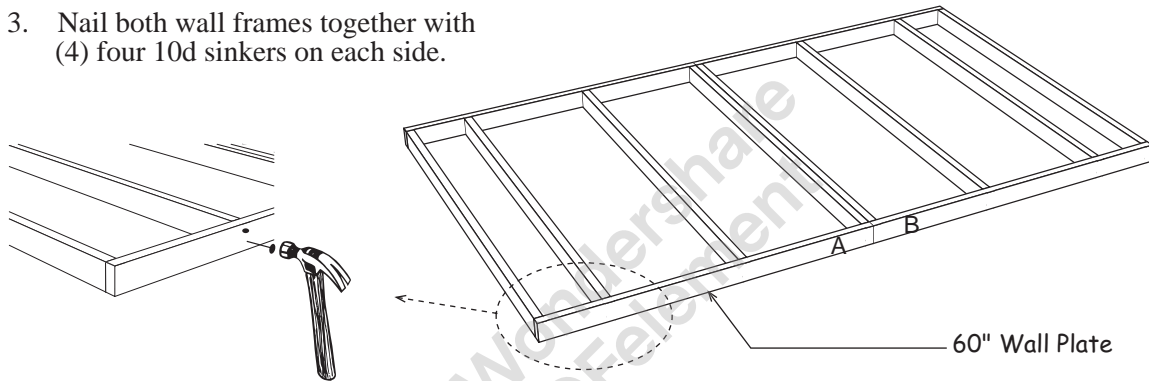
4. Square frame, *measure diagonally (corner to corner).* The measurement should be 141-1/2".

5. Repeat steps 1-4 to assemble next end wall frame.

6. Select a 36-3/4" wide siding panel with a 'tongue' edge. Install this panel with the 'Cut' edge flush with the end of the wall frame. Install siding flush with the 2x4 top plate. Use 6d galv. nails spaced 8" apart.

7. Install a full width x 75-3/4" long siding panel next.

8. Install a 36" x 75-3/4" siding panel last. If necessary trim panel flush with 2x4.

Tongue Edge

LAP Edge

36-3/4"
Wide Siding

Cut Edge

Siding Extends 3/4" Below Plate

## Step 2B   Assemble End Walls Continued

9. Install a 60" long 2x4 in the center of the wall panel, at the top. Use (6) six 10d sinkers. Set wall aside.
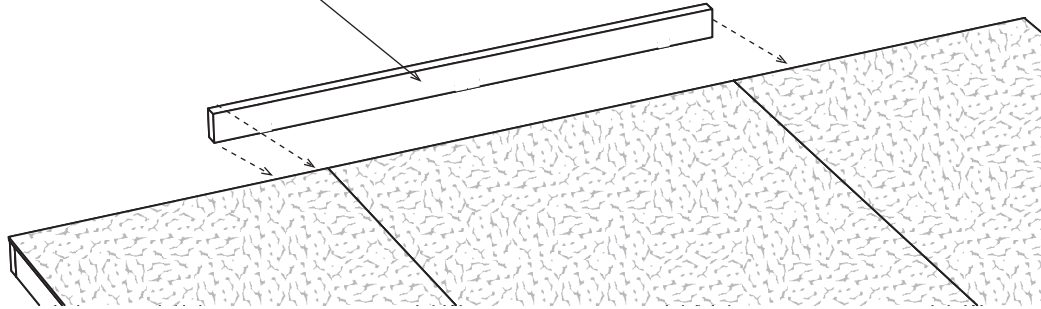
10. Select the other end wall frame.

11. Square wall frame. Select a 12-1/2" wide siding panel with a 'tongue' edge. Install this panel with the 'Cut' edge flush with the end of the wall frame. Install siding flush with the 2x4 top plate.

12. Install (2) two full width x 75-3/4" long siding panel next.

13. Install a 11-3/4" x 75-3/4" siding panel last.
    If necessary trim panel flush with 2x4.

Tongue Edge

LAP Edge

Cut Edge
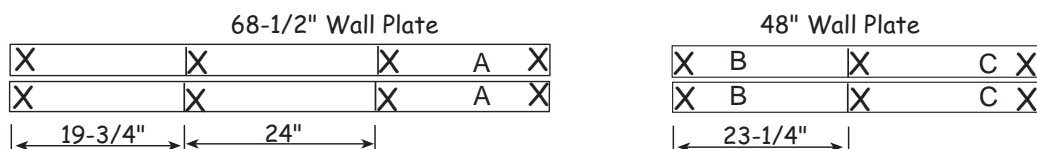
Siding Extends 3/4" Below Plate
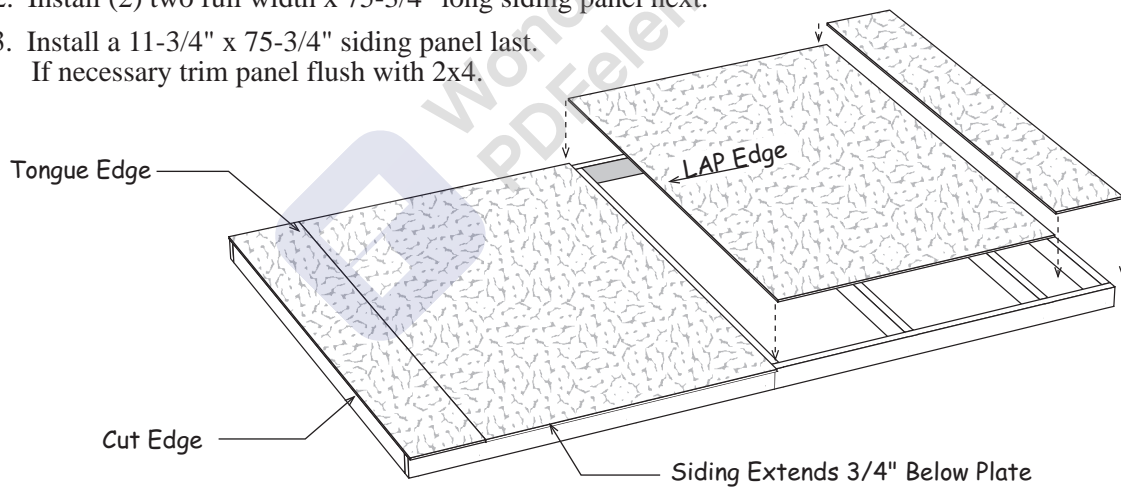
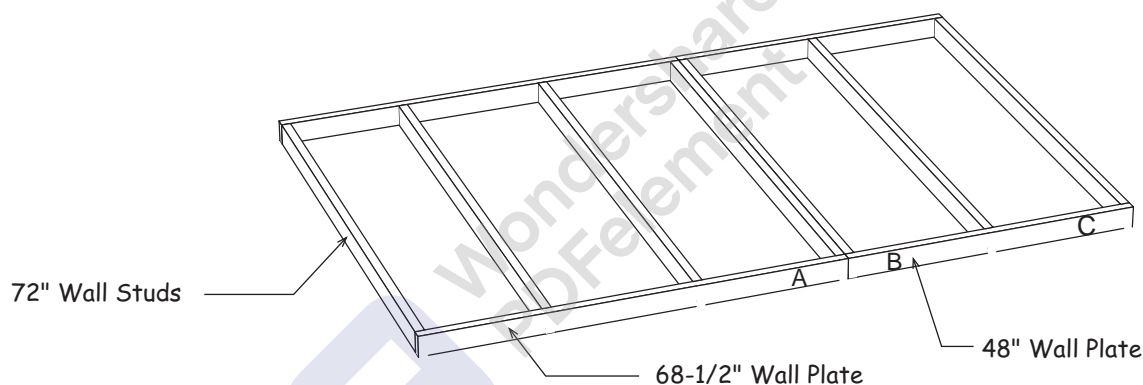14. Install a 60" long 2x4 in the center of the wall panel.
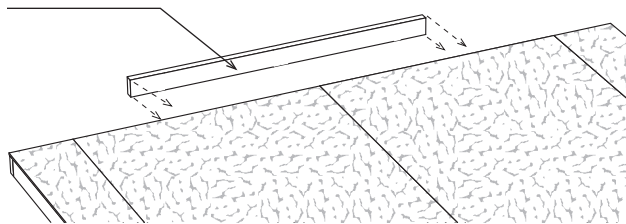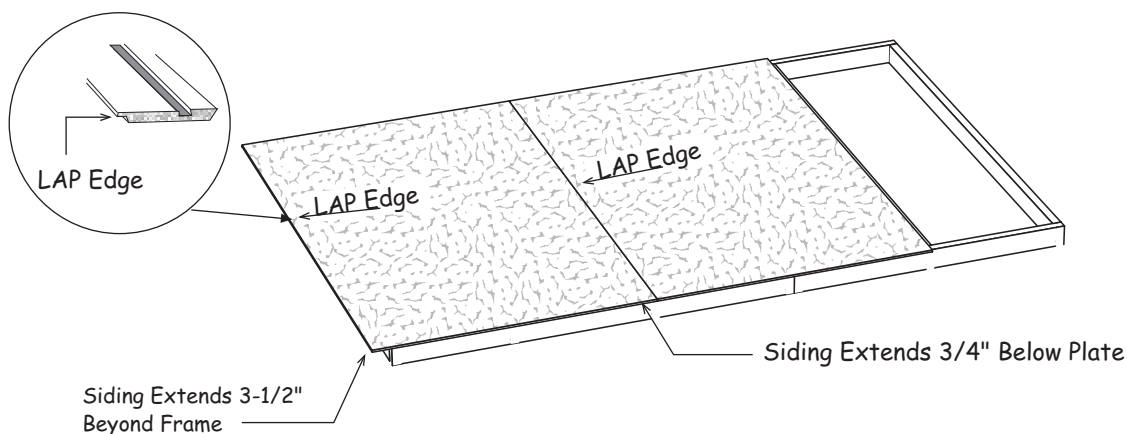
Step 3A   Assemble Back Wall

1. Position (2) two 68-1/2" and (2) two 48" long 2x4s together and indicate with 'X' marks, where the wall studs will be located. Mark plates with the letters 'A', 'B' and 'C' so frames are correctly oriented.

68-1/2" Wall Plate

48" Wall Plate

2. Install 72" wall studs between the top and bottom plates. Assemble wall frames with 10d sinkers. Nail both wall frames together.

72" Wall Studs

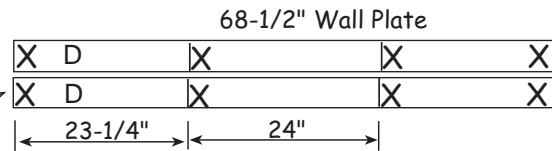68-1/2" Wall Plate

48" Wall Plate

3. Square wall frame. The measurement should be 138-1/2". Install (2) two full width siding panels. Install the first siding panel with the 'LAP' edge extending 3-1/2" past the end of the wall frame. Install a full width panel next. The siding should extend 3/4" below the bottom plate and flush with the top plate. The last siding panel will be installed in a later step.

LAP Edge

LAP Edge

LAP Edge

Siding Extends 3/4" Below Plate

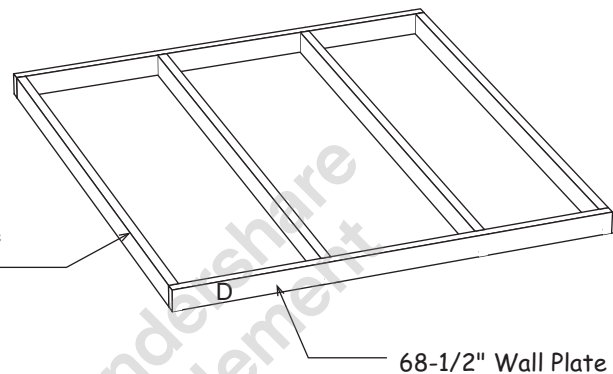Siding Extends 3-1/2"
Beyond Frame

Step 3B   Assemble Back Wall Continued

5. Position (2) two 68-1/2" long 2x4s together and indicate with 'X' marks, where the wall studs will be located. Mark the left ends with the letter 'D'.

68-1/2" Wall Plate

| X | D | | X | | X | | X |

| X | D | | X | | X | | X |

23-1/4"   24"

6. Install 72" wall studs between the top and bottom plates.
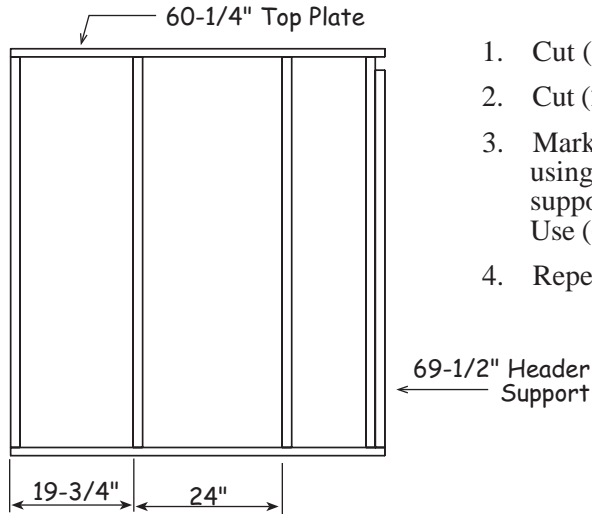
D

68-1/2" Wall Plate

7. Select the wall panel from previous step. Nail, with 10d sinkers, the 68-1/2" frame assembled above to the end of the wall panel.

8. Install a full width siding panel. The last siding panel will be installed after the walls are erected on the floor.

LAP Edge

A   B   C   D
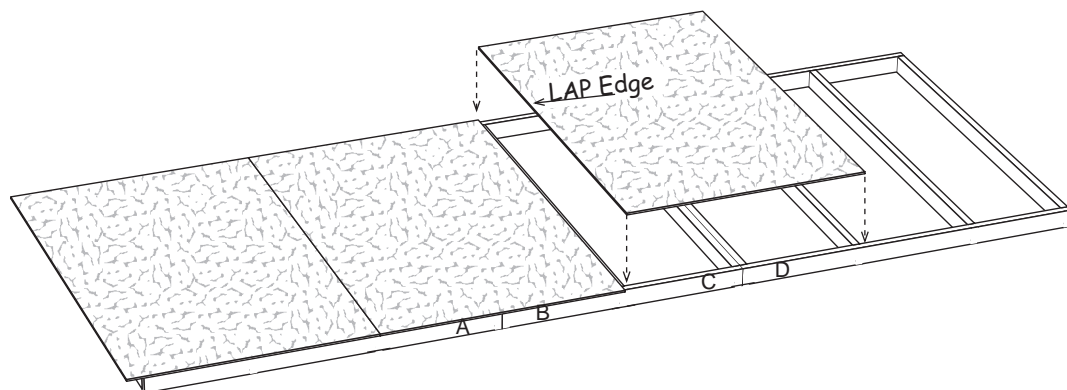
Step 4   Assemble Front Wall Frames

60-1/4" Top Plate

69-1/2" Header Support

19-3/4"   24"

1. Cut (1) one 72" long 2x4 to a length of 69-1/2".

2. Cut (2) two 68-1/2" long 2x4s to a length of 60-1/4".

3. Mark spacing as shown and assemble a wall frame using (4) four 72" long 2x4s, (1) one 69-1/2 header support and (2) two 60-1/4" top and bottom plates. Use (6) six 10d sinkers to nail header support to stud.

4. Repeat to assemble another wall frame.

Step 5A   Set Walls

☞ **IMPORTANT: Make sure walls are plum and square.**

1. Secure the back wall between the end wall panels. Secure panels together at the corners. Use (4) four 10d sinkers per corner. Use 10d sinkers or, if erecting on a concrete slab, concrete anchor bolts (not included) spaced 24" apart.

Nail Along Siding Edge
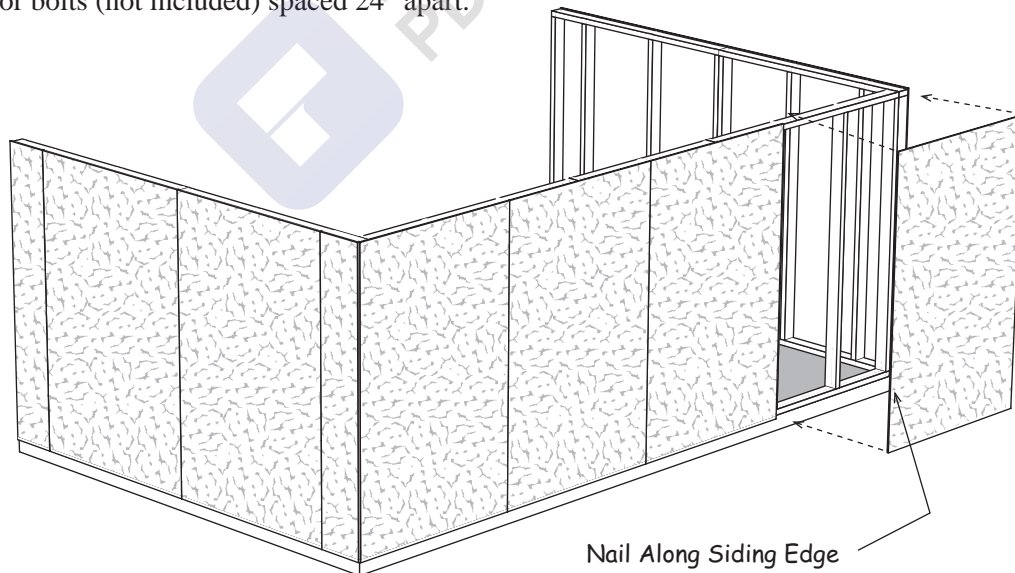
2. Install a 48" x 75-3/4" siding panel to the back wall. Use 6d galv. nails. Nail along the adjoining siding panel.

Step 5B   Set Walls Continued

3. Install front wall frames between the end walls.

4. 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.

2x4 Wall Brace
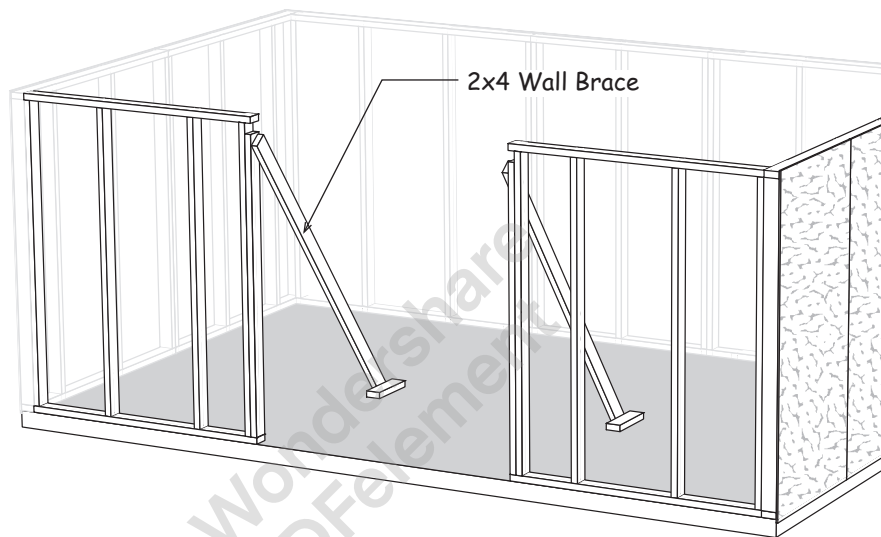
5. Install a 67-1/2" door header between the front wall frames on top of header supports. Secure with 10d sinkers.

6. Cut a 72" long 2x4 to 64-1/2" and install over the door header. Nail through studs with 10d sinkers.

64-1/2" Wall Plate

67-1/2" Door Header

2x4 Wall Brace
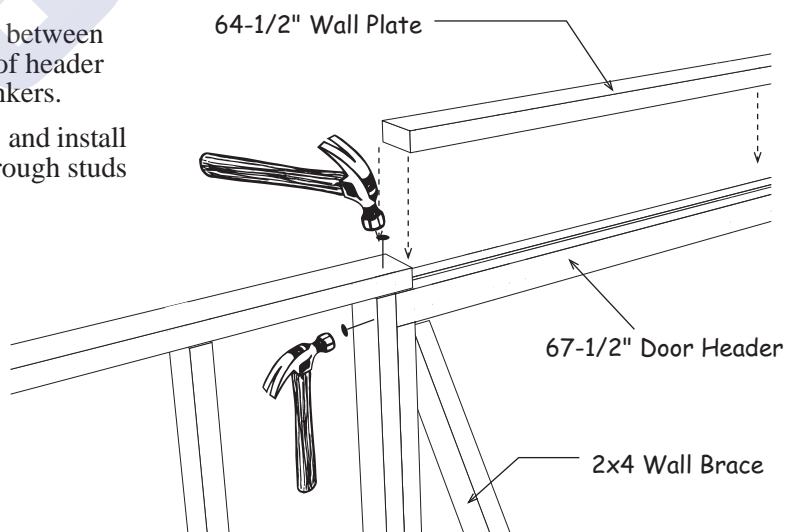
Step 6   Install Siding on Front Wall

1. Select a full with siding panel and install at the front left corner.

2. Install a 15-3/4" siding panel with a 'LAP' edge next. Cut edge should be flush with door opening.

3. Install (2) two 4-3/4" x 32-1/4" siding panels over the door opening. Bottom of siding should extend 3/4" below header. Trim will cover where the siding panels butt together in the center.

4. Select and install a 16-1/2" siding panel next. Cut edge should be flush with door opening.

5. Install last siding panel.
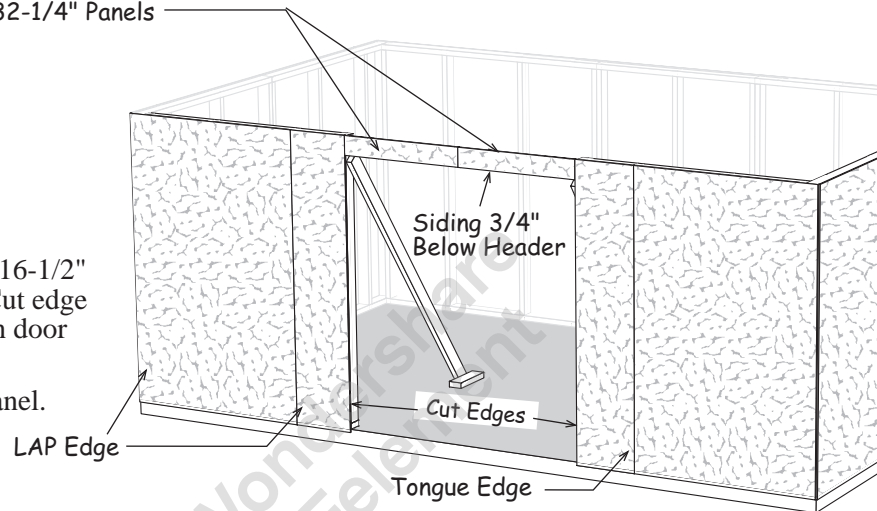
Step 7A   Install Tie Plates

1. Remove a 2x4-72" board used to brace front wall. Cut board in half to make (2) two 36" long boards. Install this 2x4 on back wall flush with the 2x4 wall plate on the end wall. Use 10d sinkers spaced 16" apart.

2. Install a 48" long 2x4 and then a 72" long 2x4.

3. Finish by installing a 36" long 2x4.

4. Repeat to install tie plates on the front wall.
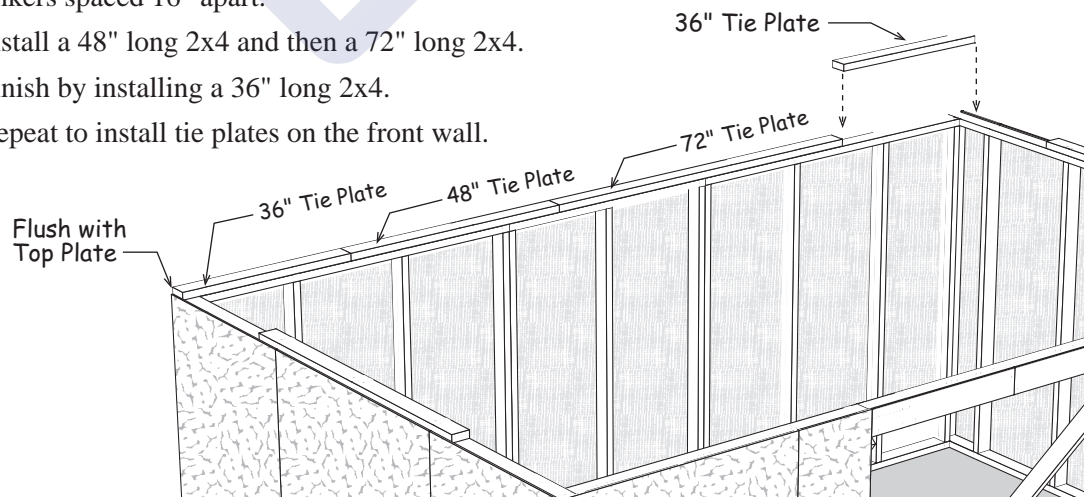
Step 7B   Install Tie Plates Continued

5. Cut (4) four 26-1/2" long 2x4s from (2) two 60" long 2x4 boards.

6. Install the 26-1/2" boards on both end walls, see below.

26-1/2" Tie Plate

26-1/2" Tie Plate
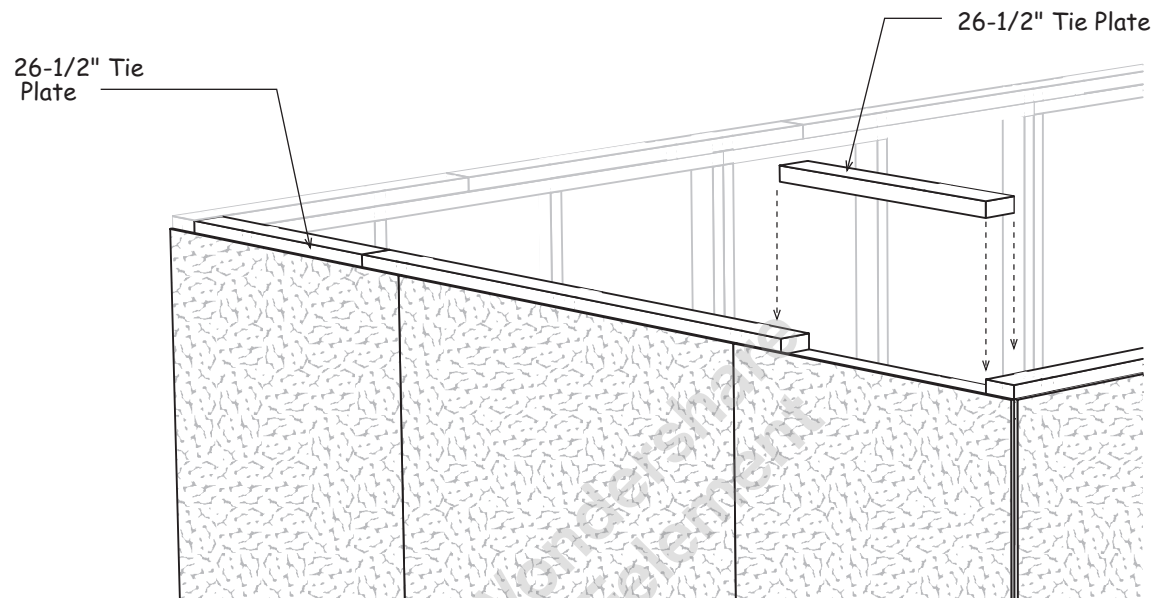
Step 8   Install Roof Gable

1. Select a truss with a gusset installed on one side. Position this truss with the gusset facing towards the inside of the building and flush with 2x4s on end wall.

2. Install a 10" to 12" long 2x4 block on the back wall using 10d sinkers. Secure the truss to the 2x4 block with (2) two 10 sinkers.

3. Install a 2x4 block on front wall and secure the truss.

Install 2x4 Block
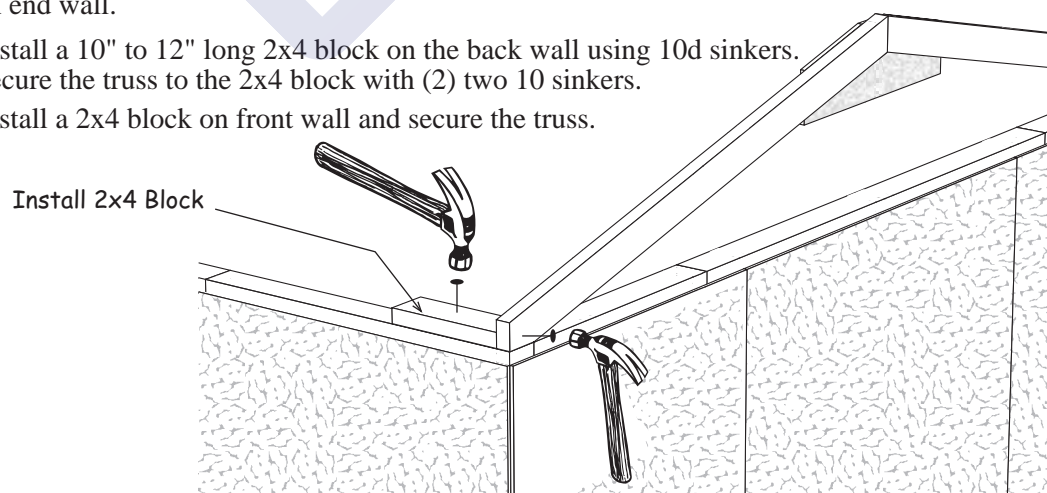
Step 9   Install 'Z' Flashing

Install (2) two 60" pieces of 'Z' flashing across the top of the siding on the end wall siding. Secure in place using 6d galv. nails spaced 12" apart. The ends will be covered by corner trim.

Roof Gable

60" Long 'Z' Flashing

End Wall Siding
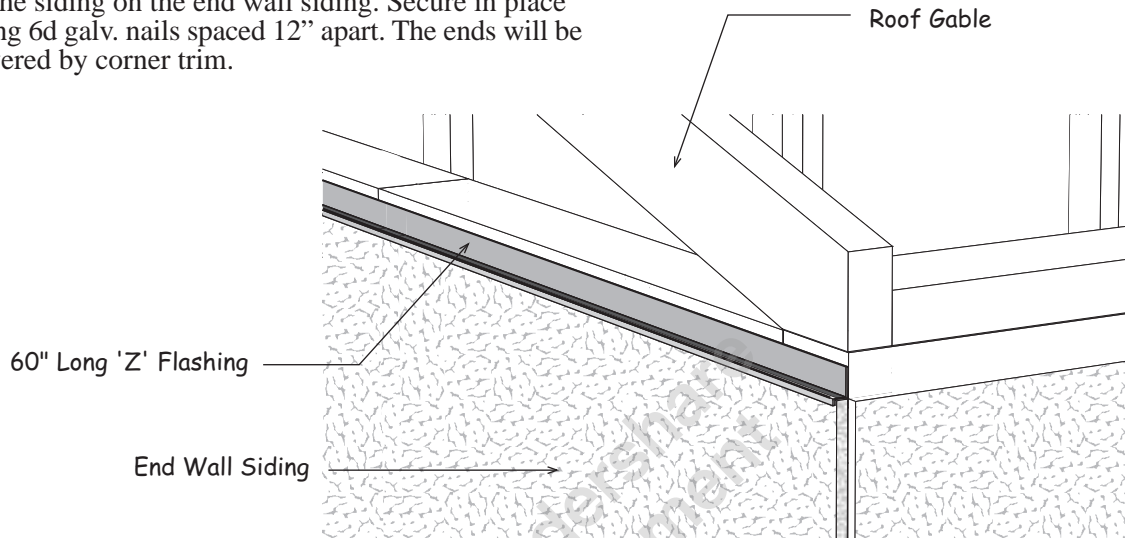
Step 10   Install Roof Gable Siding

1. Install gable siding on the roof gable using 6d galv. The gable siding should extend no more than 1/2" above the 2x4 frame and 1-1/2" past gable ends.

2. Repeat **Steps 8** thru **10** to install the opposite gable.

1/2" Above 2x4

1-1/2" Past End of Gable
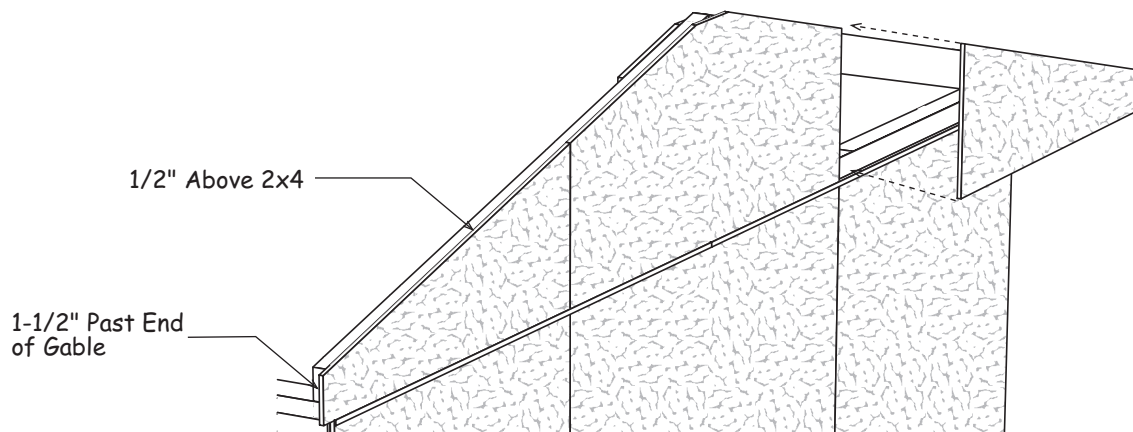
Step 11   Install 2x4 Truss Headers

1. Place a 72" long 2x4 on top of the siding on the front wall. It will butt against the siding on the roof gable. Nail this 2x4 to the 2x4 tie plate with 10d sinkers.

2. Install a 48" long 2x4 next.

3. Cut to fit a 72" long 2x4 to finish against gable.

4. Repeat to install 2x4 on the back wall.

Roof Gable

2x4-72" Board

Front Wall Siding
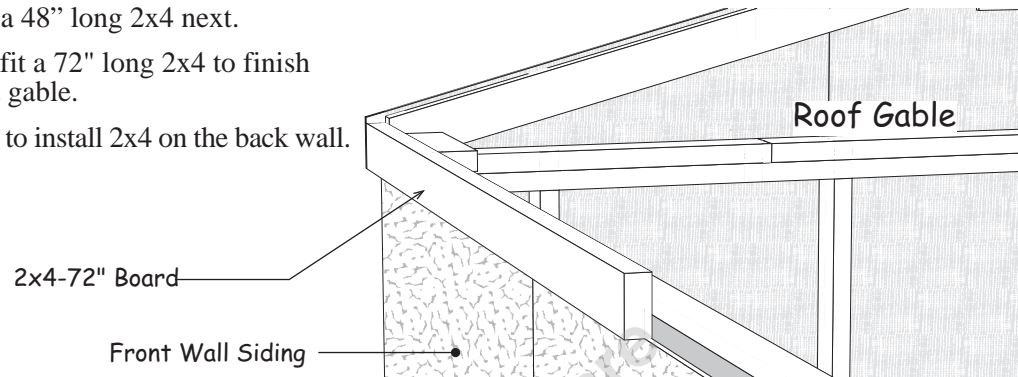
Step 12A   Install Trusses

1. Starting from left end wall install the first truss measuring 21-3/4" from the face of the 2x4 on back gable and the face of 2x4 truss. Secure the trusses using 2-1/2" screws and 10d sinkers, See Detail 'A' on next page.

2. Install the remaining trusses 24" on center, *see detail below.*

21-3/4"   24"   24"

2x4 Truss Header

End Wall

Front Wall
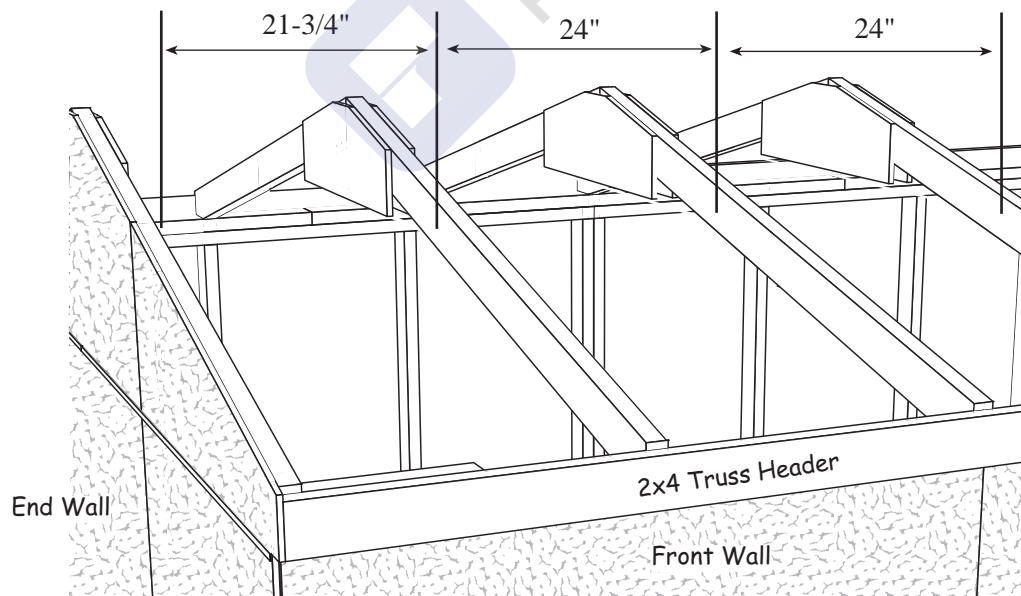
Step 12B   Install Trusses Continued

Using a 2-1/2" screw, secure all trusses to 2x4 Truss Header installed in Step
11. Toe nail truss into 2x4 tie plate using 10d sinkers.

2x4" Truss Header

Detail 'A'
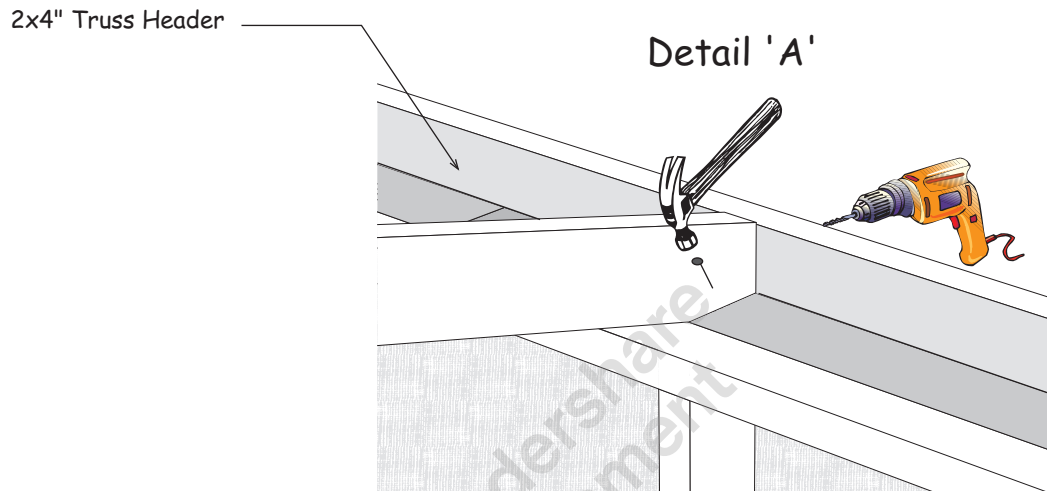
Step 13   Install 1x4 Fascia

1. Install 72" long 1x4 fascia trim over the 2x4 Truss Header on the front wall. Install 1x4 trim
    boards flush with the bottom of the 2x4 Truss Header and the face of the siding on the gable.
    Use 6d galv. nails spaced 12" apart.

2. Install a 48" long 1x4 next.

3. Cut a 74" long 1x4 to length and install
    flush with the siding on the other gable.

4. Repeat to install 1x4 fascia on the back
    wall.

1x4 Fascia Trim
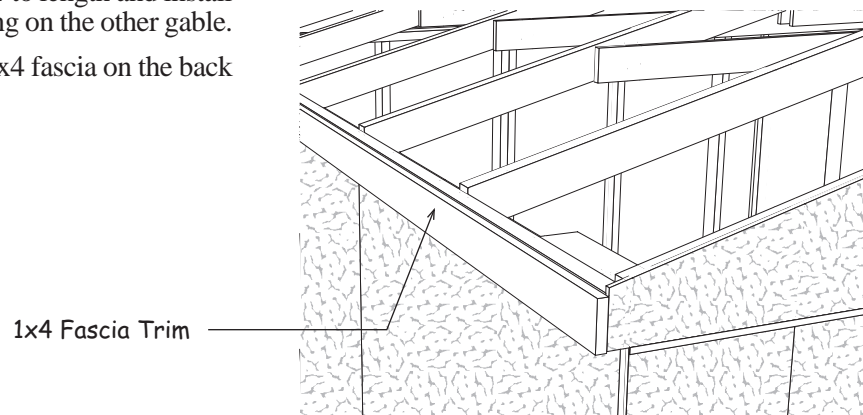
Step 14   Install Roof Sheathing

☞ Install roof sheathing with 6d common, space nails 12" apart. When installing sheathing across the top, insert a plyclip into the roof sheathing between each truss. The top row of sheathing will be about 1" below the ridge to allow for optional ridge venting. See detail below.

Shingles

Truss

Air
Space
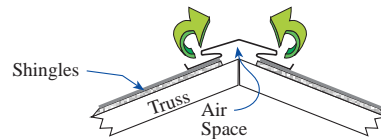
*See supplier of shingles to
purchase ridge venting.*

1. Install a 24"x48" roof sheathing panel against the back of of gable siding. Note: Using a straight edge install the top edge of the roof sheathing flush with the face of the 1x4 fascia. See Detail 'B'.

2. Install a 48"x48" sheet next to the 24"x48" sheet.

3. Install a 15" x 48" sheathing panel at the top.

4. Continue to install sheathing per layout below.

5. Repeat on opposite side.

Plyclip

Detail 'B'

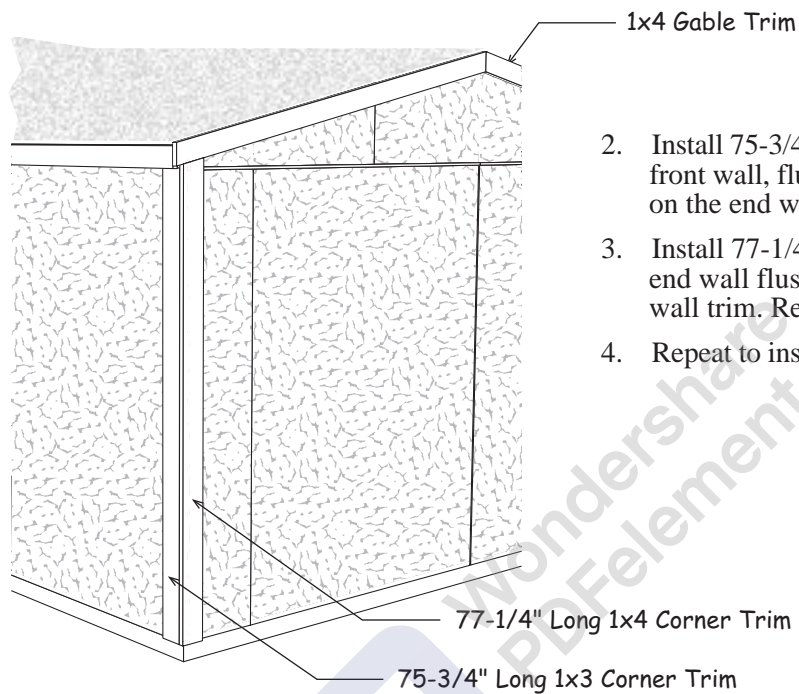Straight Edge

Roof Sheathing

2x4 Truss
Header

1x4 Fascia

Siding
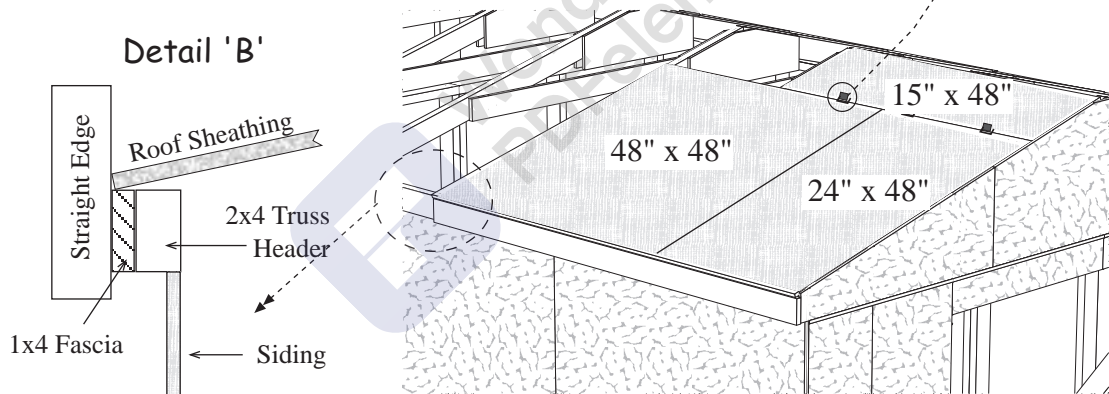
15" x 48"

48" x 48"

24" x 48"

Roof Ridge

| 15" x 48"	15" x 48"	15" x 48"	15" x 48"	
24" x 48"	48" x 48"	48" x 48"	48" x 48"	24" x 48"

Step 15   Install Trim

1. Install 64-3/8" long 1x4 gable trim flush with the top of the roof sheathing on both end walls. Use 6d galv. nails spaced 12" apart.

1x4 Gable Trim

2. Install 75-3/4" long 1x3 corner trim, on the front wall, flush with the face of the siding on the end walls. Repeat for back wall.

3. Install 77-1/4" long 1x4 corner trim on the end wall flush with the face of the front wall trim. Repeat for back wall.

4. Repeat to install trim on opposite end wall.

77-1/4" Long 1x4 Corner Trim

75-3/4" Long 1x3 Corner Trim

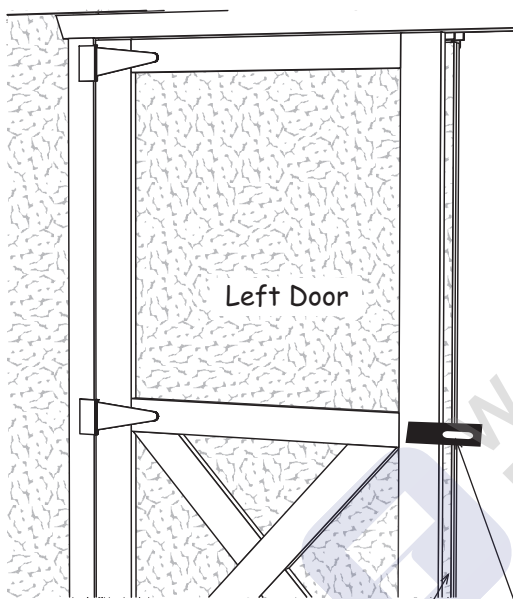Siding Will Extend Below Trim

5. Install (2) two 72" long 1x3 trim boards, *with top edge 3/4" above door opening*, along each side of the door opening. Use 6d galv. nails. Tack these boards with a couple nails; you may want to move the trim later when you install the doors.

6. Install a 72" long 1x3 trim board centered across the top of the vertical trim. 3/4" of siding will be revealed at top of door.
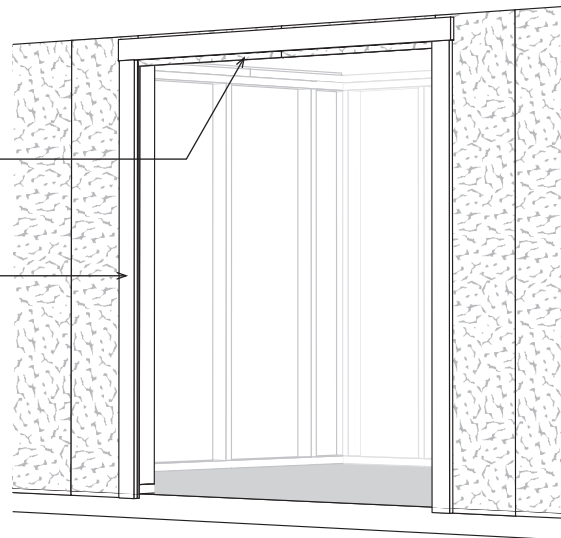
Step 16   Install Doors & Hardware
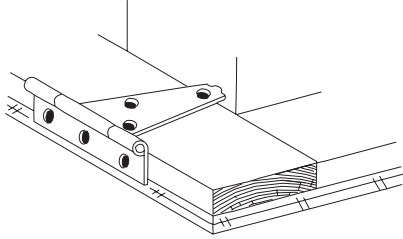
1. Lay the <u>left door</u> with the trim facing up. The siding on the left door <u>extends past the door trim</u>. See detail below.

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.

Left Door

Siding Extends Past Trim
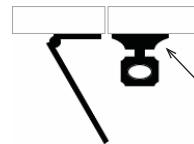
Fold Hasp to Cover Screws

Barrel Bolt on the back of left door

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.
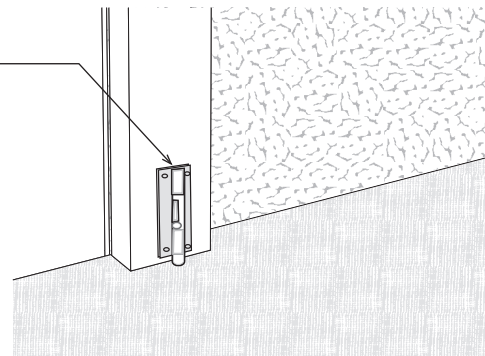
Packing List

Qty.			Description
18	2x4	62"	Truss Rafters
46	2x4	72"	Studs & Plate Boards
8	2x4	68-1/2"	Plate Boards
12	2x4	60"	Plate Boards
6	2x4	48"	Plate Boards
6	2x4	10"-12"	Blocks for Truss Jig
4	1x4	64-3/8"	Gable Trim
4	1x4	77-1/4"	Corner Trim
4	1x3	75-3/4"	Corner Trim
3	1x3	72"	Door Trim
2	1x4	74"	Fascia Trim
2	1x4	72"	Fascia Trim
2	1x4	48"	Fascia Trim
1		67-1/2"	Pre-built Door Header
2			Pre-built Barn Doors
7	48"x74-3/4"		Primed Wall Siding
2	36"x74-3/4"		Primed Wall Siding
2	16"x74-3/4"		Primed Wall Siding
2	12-1/2"x74-3/4"		Primed Wall Siding
2	4-3/4"x32-1/4"		Primed Wall Siding
2	48"x19-3/4"		Primed Gable Siding
4	38"x14-1/4"		Primed Gable Siding
6	48"x48"		OSB Roof Sheathing
4	24"x48"		OSB Roof Sheathing
8	15"x48"		OSB Roof Sheathing
16	8"x24"		OSB Wood Gussets

Qty.			Hardware Description
3	lbs.	10d	Coated Sinkers
3	lbs.	6d	Galvanized Nails
4	lbs.	6d	Common Nails
6		5"	Hinges
1		4"	Door Hasp
2		6"	Barrel Bolts
25		1-1/4"	Hinge Screws
25		2"	Hinge Screws
50		2-1/2"	Deck Screws
16		2"	Hinge Screws
14		3/4"	Pan Head Screws
4		60"	'Z' Flashing

Material Purchased By Owner		
7	bdl.	Roof Shingles
7	pcs.	Roof 'drip' edge