Best Barns USA
Assembly Book

Revised November 4, 2022
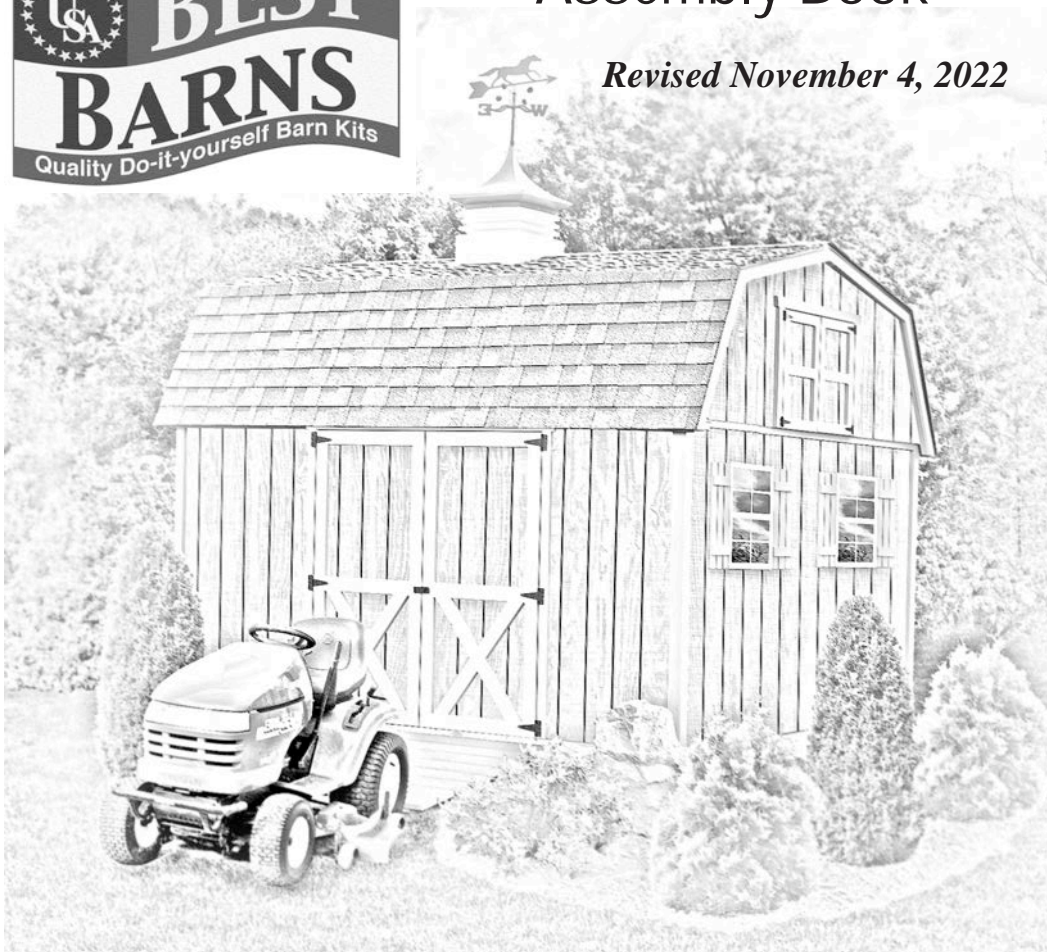
BEST BARNS
USA
Quality Do-it-yourself Barn Kits

the Meadowbrook-R   12' x 10'

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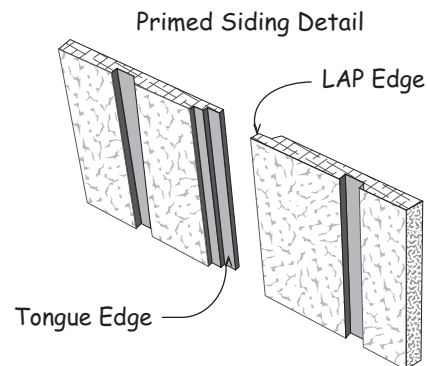Wall Plate - Top and bottom 2x4s used to frame walls
Tie Plate - 2x4s connecting wall sections together
Header - Spans top of door opening
OSB - Oriented Strand Board
LAP - Edge of siding that overlaps Tongue
Tongue - Edge of siding that is overlapped

Primed Siding Detail

LAP Edge

Tongue Edge

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

Constructing Details for Deluxe Floor System
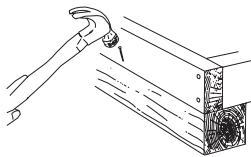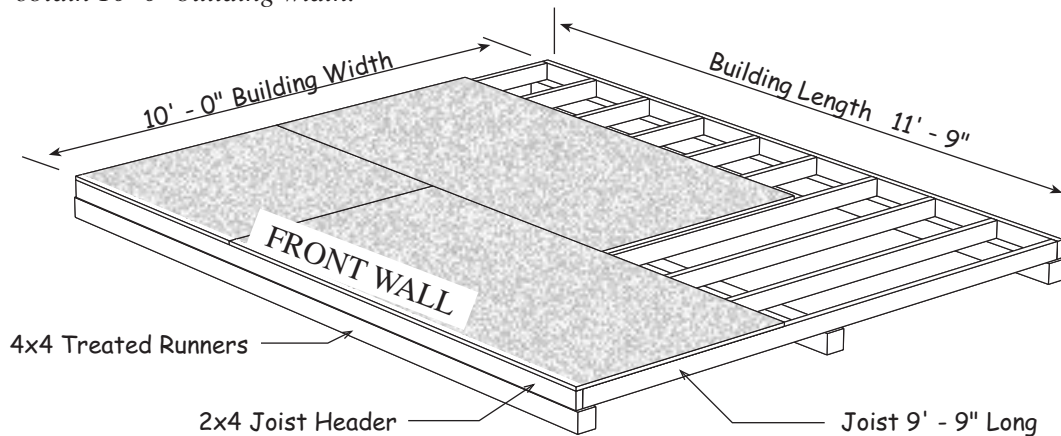*Deluxe floors include 4x4 runners, standard floors do not*

Foundation size is 10'-0" x 11'-9". Check local building codes in your area, the construction may have to change. For a concrete slab, install sill sealer as a moisture barrier between the concrete and the wall plates. Foam sill sealer can be purchased at home centers in rolls 3-1/2" or wider.

1. Cut joist headers to floor length. See Below.

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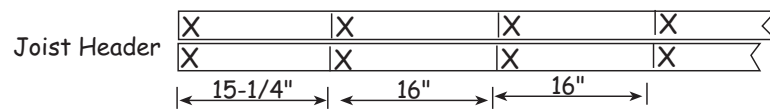
2. Cut 2x4-10' floor joist to 9'-9". *Treated lumber may be thicker than 1-1/2". Take this into account when cutting the length of floor joists. Shorten joist measurements if necessary to obtain 10'-0" building width.*

10' - 0" Building Width

Building Length 11' - 9"

FRONT WALL

4x4 Treated Runners

2x4 Joist Header

Joist 9' - 9" Long

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

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

Material Description	10' x 12' shed		10' x 16' shed	
2x4 Joist Headers	2 pcs.	12'	2 pcs.	16'
2x4 Floor Joist	10 pcs.	10'	13 pcs.	10'
4x4 Treated Runners	3 pcs.	12'	6 pcs.	8'
Flooring 5/8" or 3/4"	4 pcs.	4x8	5 pcs.	4x8
Screw Floor Nails	1 lb.	8d	2 lb.	8d
Galv. Box Nails	1 lb.	16d	1 lb.	16d

Step 1   Assemble Trusses

1. Position (2) two truss halves together so that a 116-1/4" long 2x4 bottom cord may be placed between them.

2. Hold truss parts in place by temporarily screwing 2x4 blocks to the floor. There are short 2x4 blocks supplied in the kit for this purpose. Use 2-1/2" wood screws.

3. Secure the tops together with a wood gusset. Nail the gusset with (16) sixteen 6d common nails. Space nails evenly.

4. Secure the truss bottom legs to the bottom cord with wood gussets. **Note**: You may have to spread the truss bottom to fit the bottom 2x4. Use 12 nails per gusset. Space nails evenly.

5. Assemble (3) three more trusses.

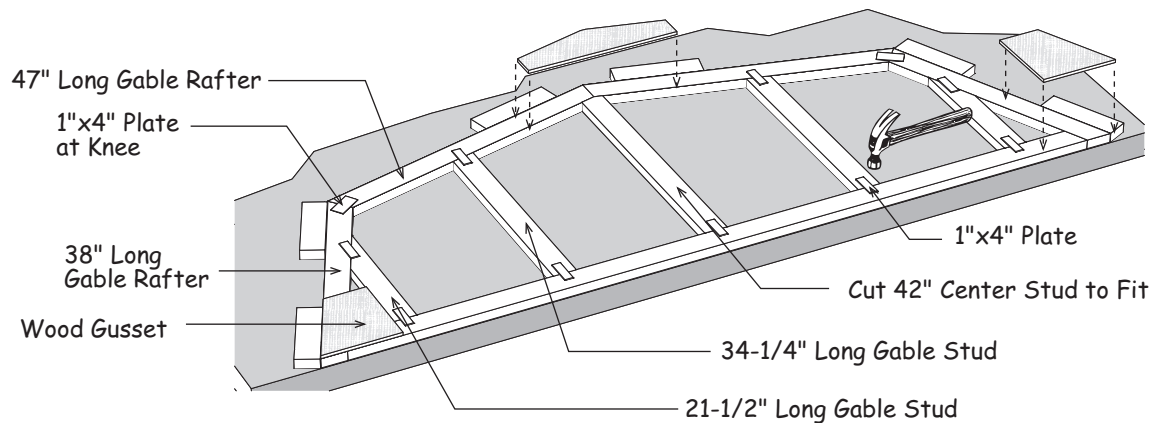6. Turn trusses over and apply wood gussets to the opposite side.
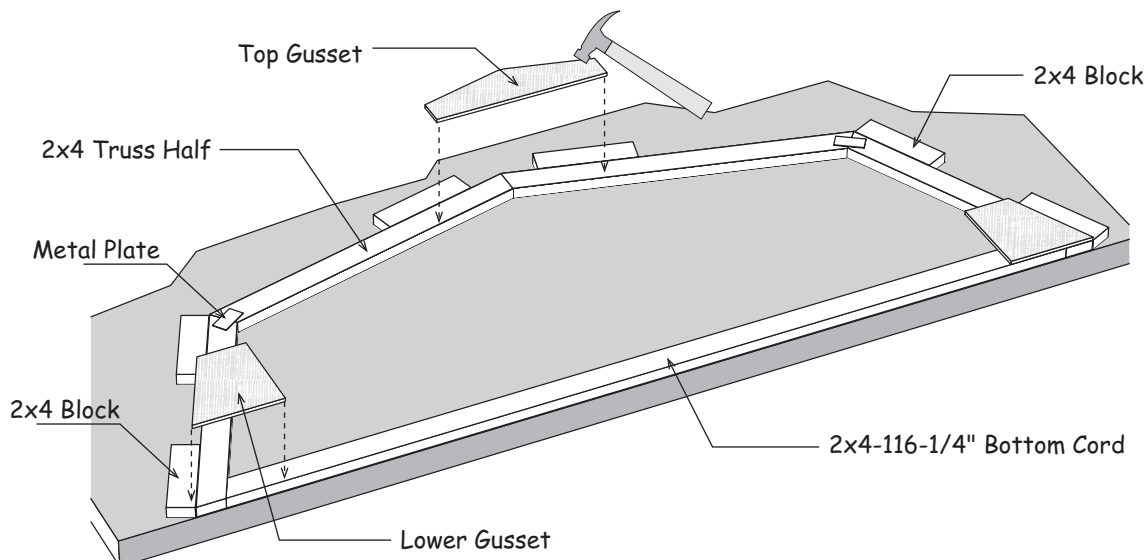
7. Assemble another truss without a bottom cord. Locate wood gussets with a 2x4 block attached to one side.

8. Attach this block/gusset to the bottom of each truss leg. Secure to leg with 6d common nails.

9. Turn truss over and apply gussets.
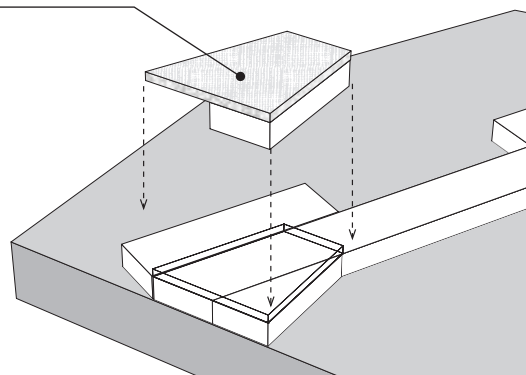
Do Not remove blocks from floor until **Step 2** is completed.
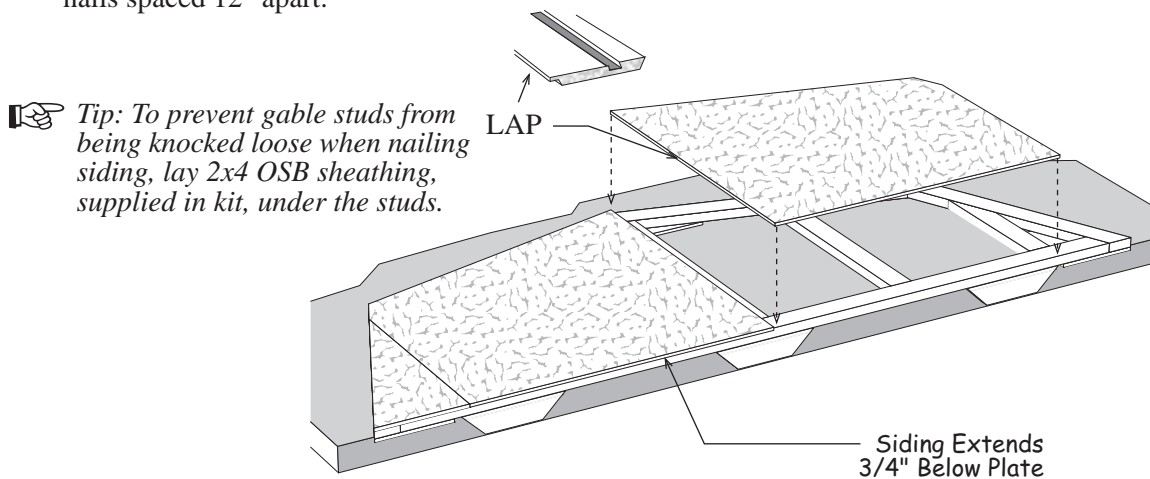
Step 2   Assemble Gable without Loft Door

1. Place (2) two truss halves and a 116-1/4" bottom cord in the truss jig. Secure bottom cord with gussets.

2. Select a 42" long 2x4 center stud and cut to fit between ridge and bottom cord.

3. Install (2) two 21-1/2" and (2) two 34-1/4" with angle cut on one end. Secure 2x4 gable studs to the truss with (9) nine 1"x4" metal plates at top and bottom.

47" Long Gable Rafter

1"x4" Plate
at Knee

38" Long
Gable Rafter

Wood Gusset

1"x4" Plate

Cut 42" Center Stud to Fit

34-1/4" Long Gable Stud

21-1/2" Long Gable Stud

4. Screw (3) three 16" long 2x4 blocks flush with bottom of the 2x4 bottom cord. One on each end and one in the center. Use (2) two 2-1/2" screws.
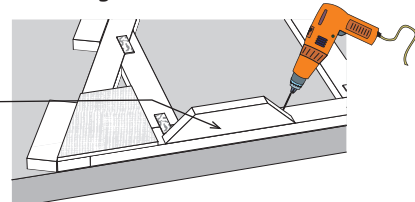
5. Turn the gable over. Locate pre-cut gable siding. Starting from left install the siding extending 3/4" below the bottom 2x4. Insure the siding does not extend above the top frame. Use 6d galv. nails spaced 12" apart.

☞ *Tip: To prevent gable studs from being knocked loose when nailing siding, lay 2x4 OSB sheathing, supplied in kit, under the studs.*

LAP

Siding Extends
3/4" Below Plate

Step 3   Install Rear Gable Overhang & Trim

1. Apply 47" long 2x3 boards to the gable. These boards have a blue marking on one end. Install boards flush with the top of the gable frame. Use 10d sinkers.

2. Install a 42-1/4" long 2x3 at the sides of the gable, flush with the frame. Board will extend below siding.

2x3-47" Board

2x3-42-1/4" Board

Extends Below Siding
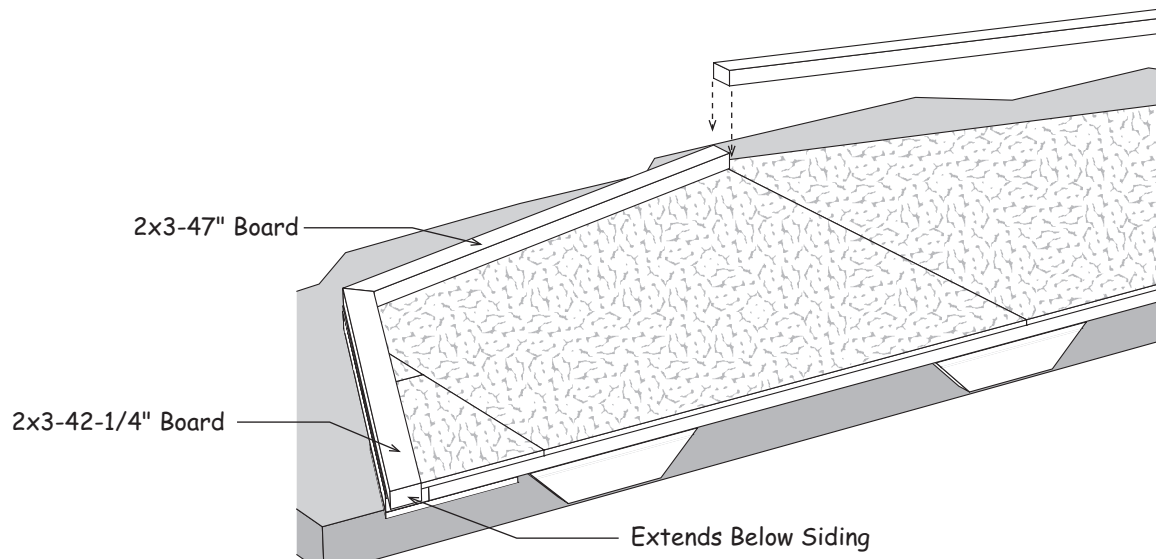
3. Apply 1x4 trim to gable. Install a 47-1/2" long 1x4 at the top of the gable. Install the 1x4 gable trim extending 1/2" above the siding on the gable. When installed later, the roof sheathing will be flush with the top of the trim. Use 6d galv. nails spaced 8" apart.

4. Install a 43" long 1x4 at the sides of the gable.

1x4 Trim
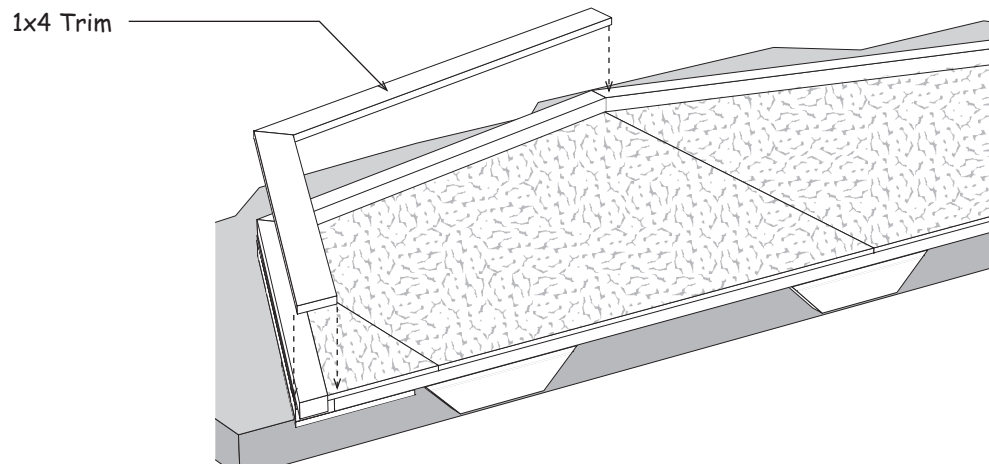
Step 4   Assemble Roof Gable With Loft Doors

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

36" Long 2x4

2x4 Truss Half

24-3/4"

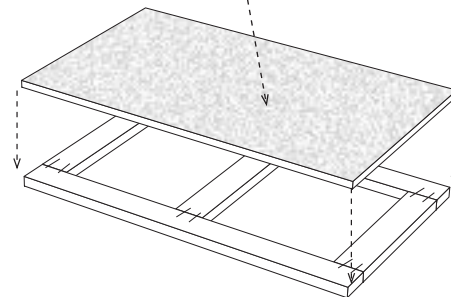34-1/4" Long
Gable Stud

21-1/2" Long Gable Stud
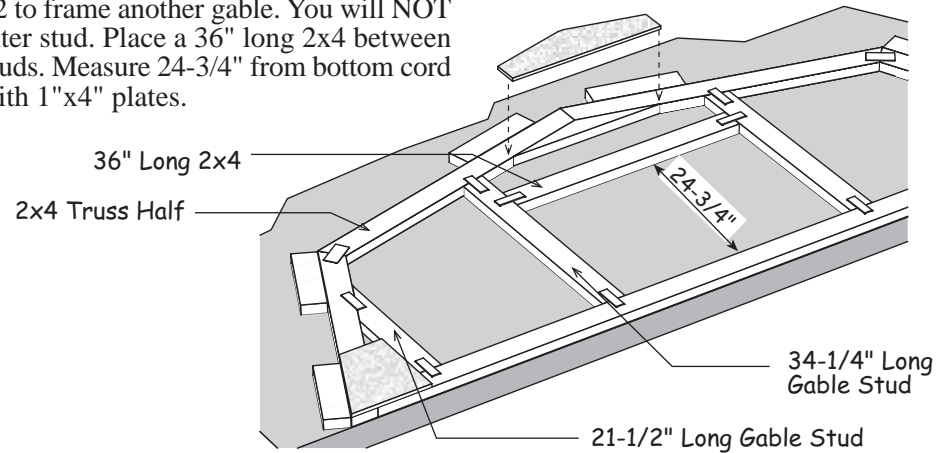
☞ *If you don't need loft access from the outside, attach loft door frames to
the gable to create a decorative look and weather tight storage area.*

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

Cut Flush with Top

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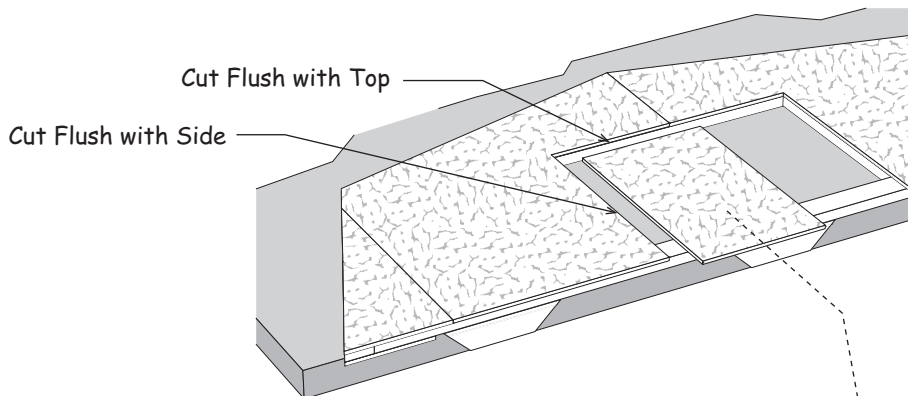
3. Assemble the loft doors. The loft door frames are
    temporarily held together with corrugated fasteners,
    this is the back side of the door frame. Place the
    doors on level surface, face side down. Cut the siding
    from above step to the size of the door frame. Secure
    the siding panel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

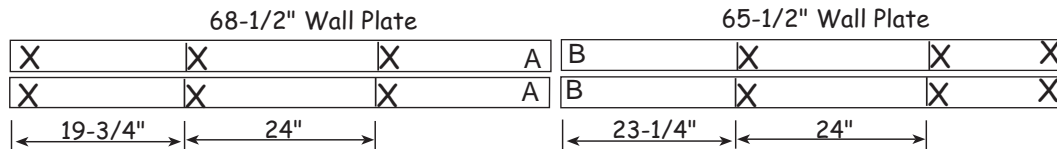## Step 5   Install Gable Trim & Loft Doors

1.   Apply 47" long 2x3 boards to the gable. Install boards flush with the top of the gable frame. Use 10d sinkers.

2.   Install a 42-1/4" long 2x3 at the sides of the gable, flush with the frame.

3.   Install 29-1/4" long 1x3 trim boards on each side of the loft door opening. Install a 43" long trim board across the top. Use 6d galv. nails.

4.   Install loft doors using 4" hinges and 1-1/4" long hinge screws. The screws have a square head. The bit is packed with the screws. Install barrel bolts to the inside top of the doors to secure doors when closed. When door is closed mark where bolt will hit 2x4 gable frame. You will need to drill a 1/4" hole into the underside of the 2x4.

1x3-43" Trim Board

2x3-47" Board

4" Hinge

1x3-29-1/4" Trim Board

2x3-42-1/4" Board
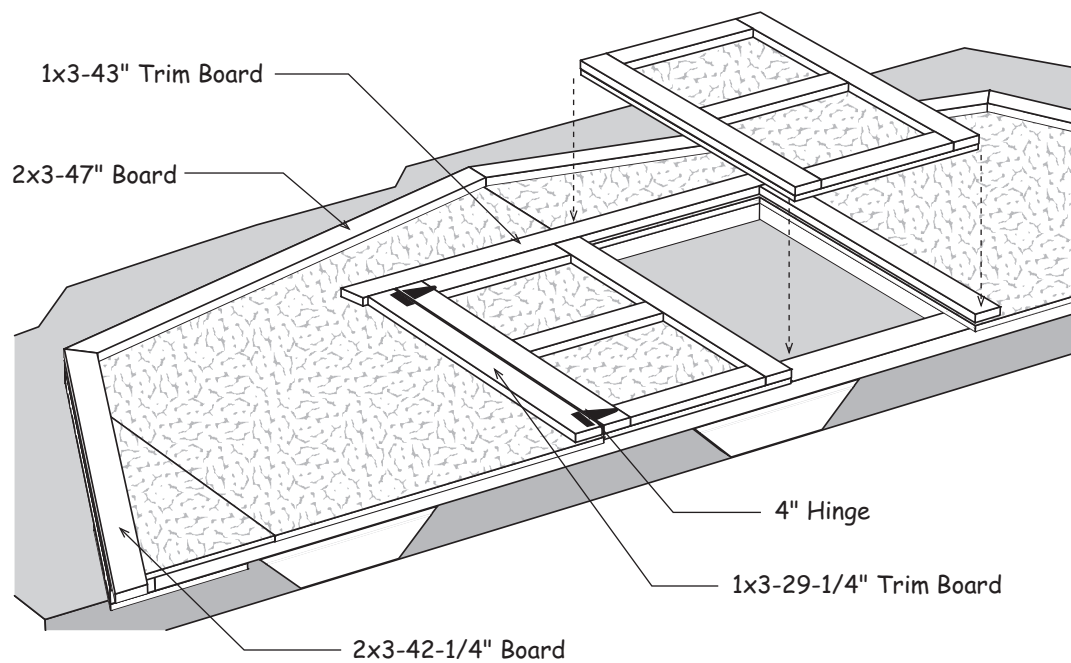
5.   Apply 1x4 trim to gable. Install a 47-1/2" long 1x4 at the top of the gable. Install trim flush with the top of the gable frame. Use 6d galv. nails.

6.   Install a 43" long 1x4 at the sides of the gable, flush with the frame.

Step 6   Assemble Back Wall

1. Position 68-1/2" and 65-1/2" long 2x4 boards together and indicate where the wall studs will be located. Mark the ends that will butt together with the letters 'A' and 'B'.

68-1/2" Wall Plate   **65-1/2" Wall Plate**

| X | X | X | A | B | X | X | X |
| X | X | X | A | B | X | X | X |

|← 19-3/4" →|← 24" →| |← 23-1/4" →|← 24" →|

2. Install 72" long wall studs, between the wall plates, over the 'X' marks and where the plates meet. Use (2) two 10d sinkers at each end of stud. Nail wall frames together using 10d sinkers.

3. Locate (2) two 70-1/2" long 2x6 boards and cut (1) one in half. Install a 35-1/4" long 2x6 first extending 3-1/2" past left side of wall. Install a 70-1/2" and finish with the last 35-1/4" 2x6 board as tie plates over the top plate. Use 10d sinkers spaced 6" apart.

70-1/2" Long 2x6 Tie Plate

35-1/4" Long 2x6 Tie Plate

153-1/2"

3-1/2"

A B
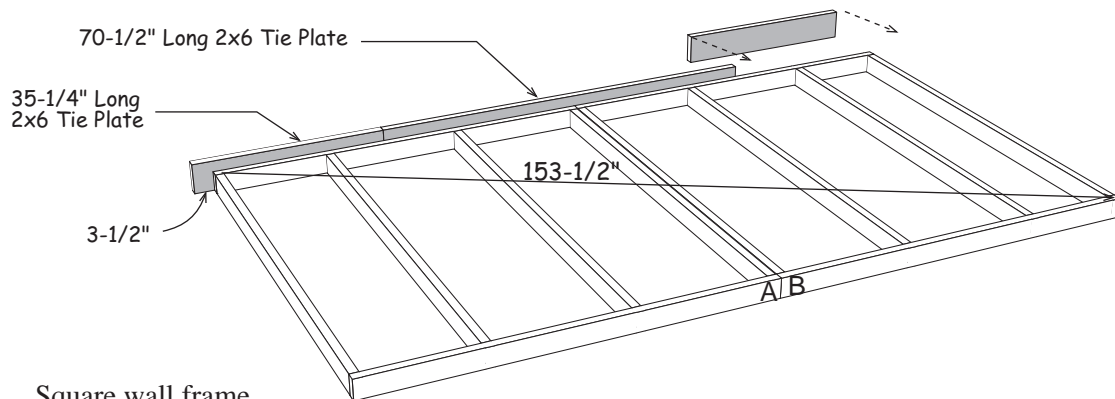
4. Square wall frame.

5. Locate (3) full width x 75-3/4" siding panels. Install the first siding panel with the 'LAP' edge extending 3-1/2" beyond the wall frame. Use the 6d galv. nails spaced 12" on center.

6. Install a full width siding panel in the center.

7. Measuring from 'LAP' edge cut last panel to a width of 45". Install so siding extends 3-1/2" past wall frame.

45" Siding Panel

LAP

Siding Extends Below Plate

Siding Extends 3-1/2" Past Wall
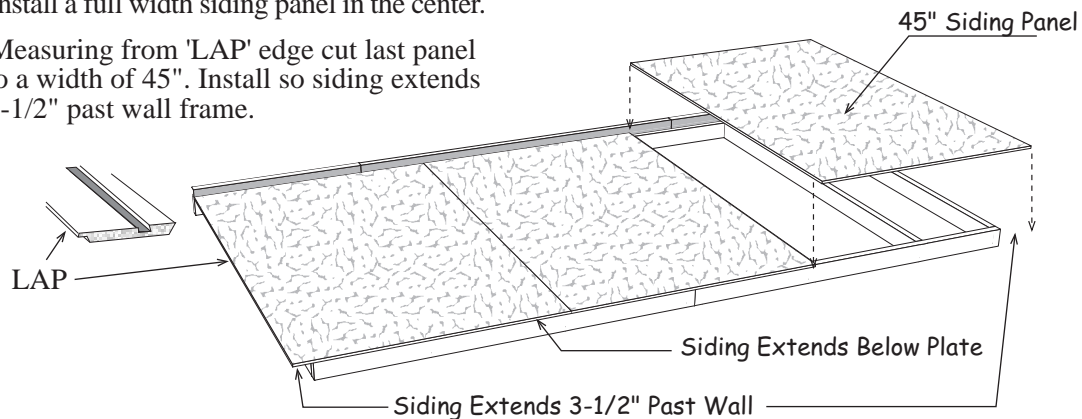
Step 7A   Assemble Front Wall Panel

☞ **Assemble door header supports and door spacer to aid in the door wall assembly.**

1. Cut (2) two 2x4-6' to a length of 69-1/2".

69-1/2" long 2x4

2. Assemble a door header support by nailing a 69-1/2" long 2x4 to a 72" long 2x4. Use 10d sinkers.

ends flush

72" long 2x4

3. Assemble another door header support.

4. Butt a 68-1/2" long 2x4 and a 65-1/2" long 2x4 together as shown below. **Important**; to keep the 2x4 aligned straight, place the 2x4 against a straight object. The top of the back wall, from **Step 6**, would be ideal.

5. Cut a 72" long 2x4 to 64-1/2". Install this board centered over the 68-1/2" and 65-1/2" 2x4s. Insure 2x4 is 34-3/4" from both ends. Use (4) 10d sinkers. Board will be cut out in a later step.

34-3/4"

Back Wall Panel

65-1/2" long 2x4

64-1/2" long 2x4 (door spacer)
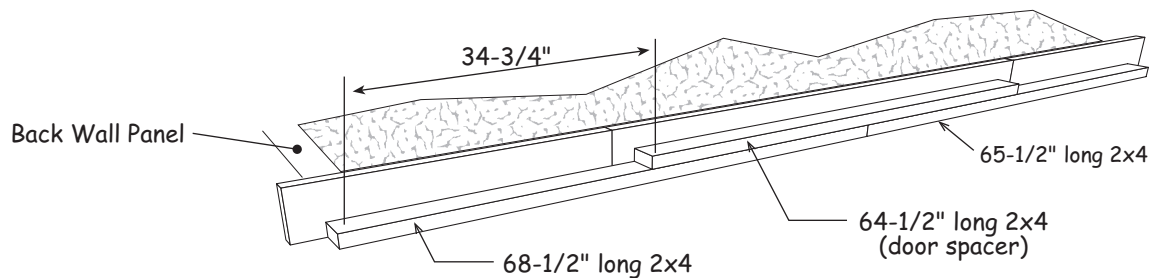
68-1/2" long 2x4

6. Gather (4) four studs and header supports. Install (2) two studs on each end at measurements shown. Install header supports against door spacer. Use 10d sinkers.

7. Install 67-1/2" header on top of supports and 68-1/2" long 2x4 and 65-1/2" long 2x4 on top of header. Use 10d sinkers.

65-1/2" long 2x4

68-1/2" long 2x4

Pre-built Door Header

Header Supports

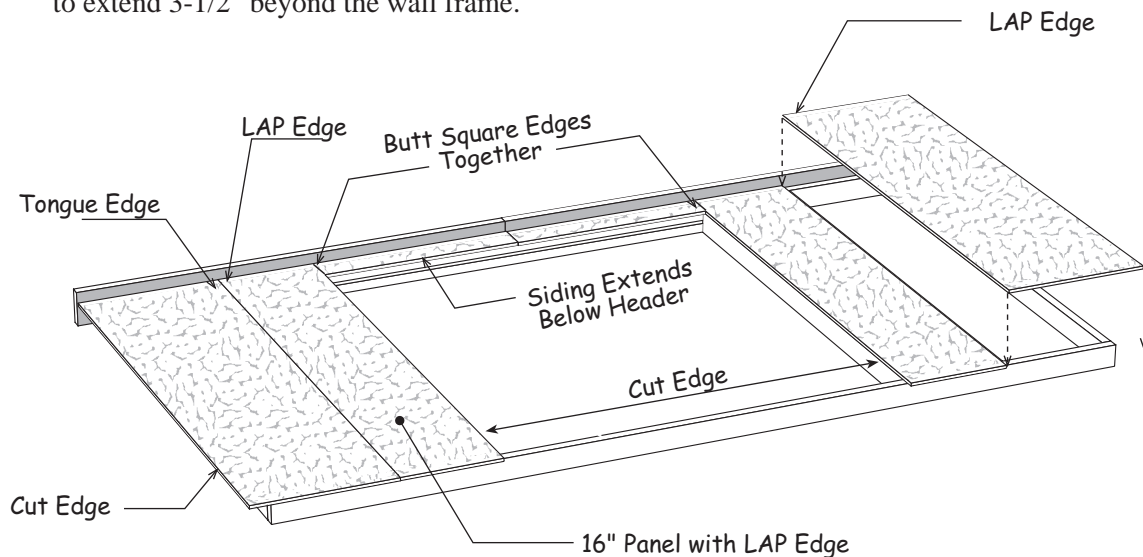64-1/2" long 2x4 (door spacer)

18-1/4"

18-1/4"
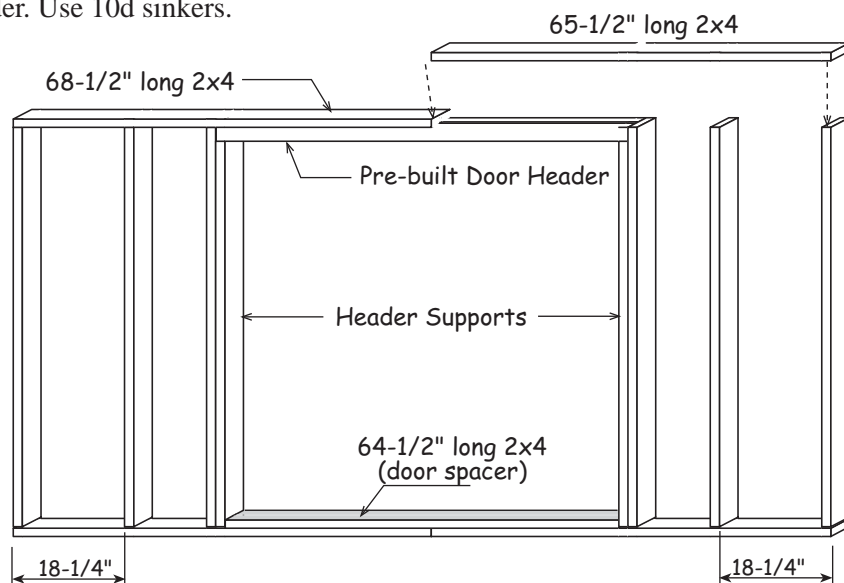
Step 7B   Assemble Front Wall Panel Continued

8. Locate (2) two 70-1/2" long 2x6 boards and cut (1) one in half. Install a 35-1/4" long 2x6 first extending 3-1/2" past left side of wall. Install a 70-1/2" and finish with the last 35-1/4" 2x6 board as tie plates over the top plate. Use 10d sinkers spaced 6" apart.

9. Install a 70-1/2" long and the cut off from above. The end 2x6 will extend 3-1/2" beyond the wall frame.

35-1/4" Long
2x6 Tie Plate
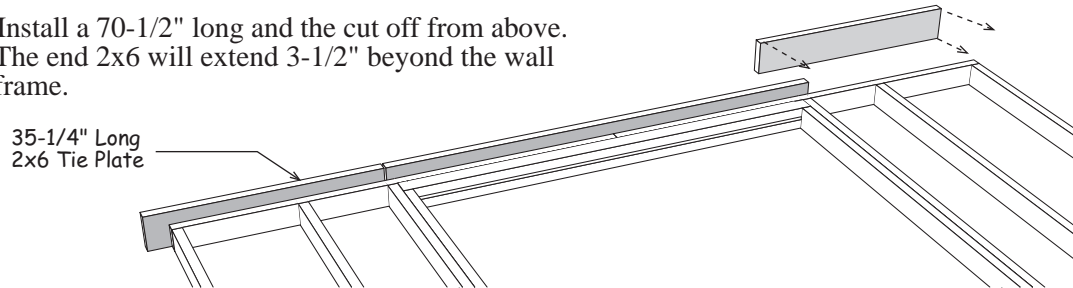
10. Locate a 16" wide siding panel that has a 'LAP' edge. Cut the siding to 75-3/4" length. Position the 'cut' edge flush with the left side of the door opening. Do not nail the 'LAP' edge until the 'left' siding panel is applied.

11. Cut a full width siding panel width to 22-1/2", *measuring from the 'tongue' edge*. Install the panel with the 'cut' edge extending 3-1/2" beyond the left end of the wall frame.

12. Cut another 16" wide panel to a length of 75-3/4" and install with the 'cut' edge flush with the right side of the door opening.

13. Cut a 32-1/4" x 6" and a 32-3/4" x 6" siding panels to a height of 4-1/2". Install siding panels over the door opening. The siding will extend below door header.

14. Cut the cutoff siding panel, from step number 13, to extend 3-1/2" beyond the wall frame.

LAP Edge

LAP Edge

Butt Square Edges
Together

Tongue Edge

Siding Extends
Below Header

Cut Edge

Cut Edge

16" Panel with LAP Edge

Step 8A   Assemble End Walls

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

10' - 0" Wall Plate

11-1/4"   24"   24"
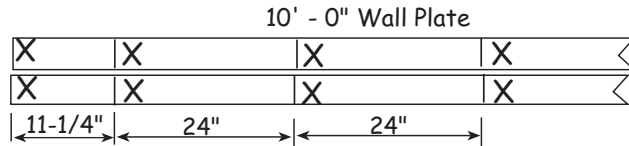
2. Install 72" wall studs between the top and bottom plates.

3. Install (2) two 56-1/2" long 2x4s as tie plates over the top plate. The 2x4s will be 3-1/2" short of the end of the wall frame.

56-1/2" Tie Plate

3-1/2"

56-1/2" Tie Plate

Top Plate

Wall Stud

141-1/2"   141-1/2"
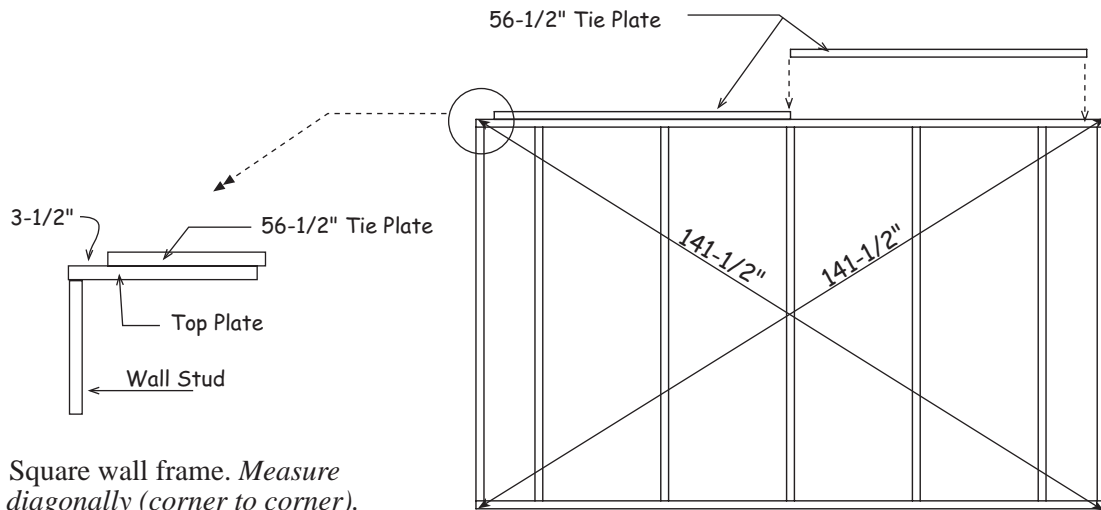
4. Square wall frame. *Measure diagonally (corner to corner).*

5. Locate a 36-3/4" x 77-1/4" siding panel with the 'Tongue' edge. Install the siding panel on the left corner, with the 'cut' edge flush with the end of the wall and flush with the top of the 2x4 tie plate. The siding should extend below the bottom plate.

6. Install a 48-3/4" x 77-1/4" siding panel in the center of the wall frame.

7. Install a 36" x 77-1-4" panel witht he 'LAP' edge last.

LAP

Tongue Edge

36-3/4" Panel

Cut Edge

Siding Extends 3/4" Below Plate
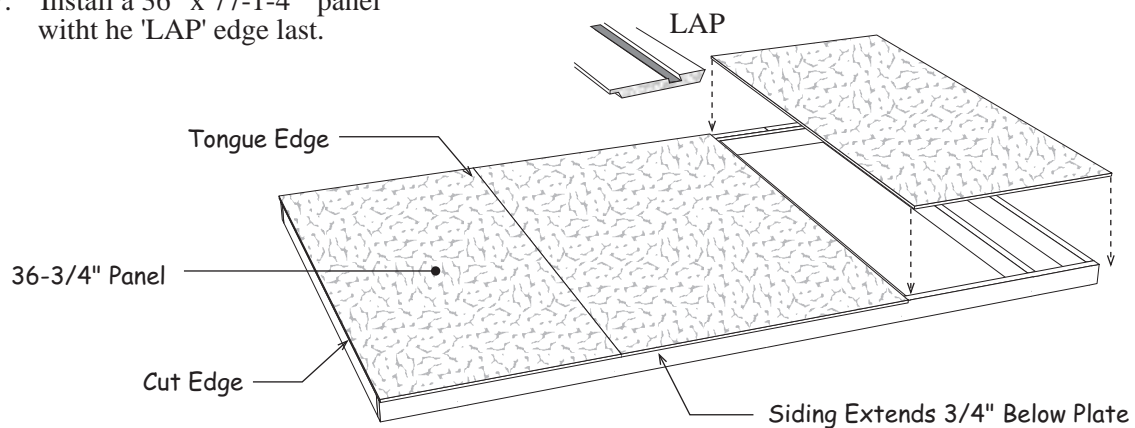
Step 8B   Assemble End Walls Continued

8. Repeat step numbers 1 thru 3 on previous page
    to assemble anotehr end wall frame

9. Install siding panels as shown below.

12" Panel with
Tongue Edge
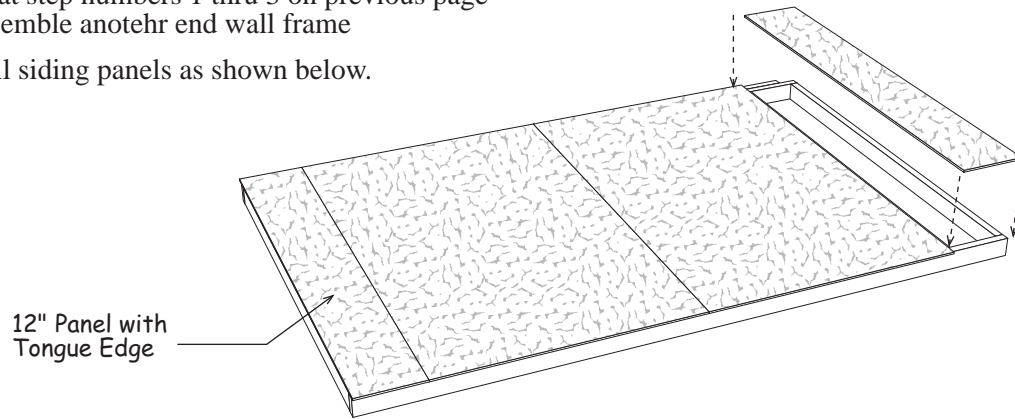
Step 9   Set Lower Walls

1. Secure wall panels together at the corners. Use (4) four 10d coated nails per corner. Nail
    wall panels to the floor. Nail through the bottom plate. Space 10d sinkers 24" apart.

2. Install (2) two 1x4-72" boards along each side of the door opening, flush with the bottom
    edge of the siding. Tack these boards with a couple nails; you may want to move the trim
    later when you install the doors. Use 6d galv. nails.

3. Install a 1x3-72" board across the top of the side trim.

4. Cut 2x4 bottom plate and door spacer from door opening. **Tip:** Use these boards to brace
    door wall.

Install 2x4 to hold wall
straight.

1x4-72" Trim

1x3-72" Trim

Cut and remove 2x4s.
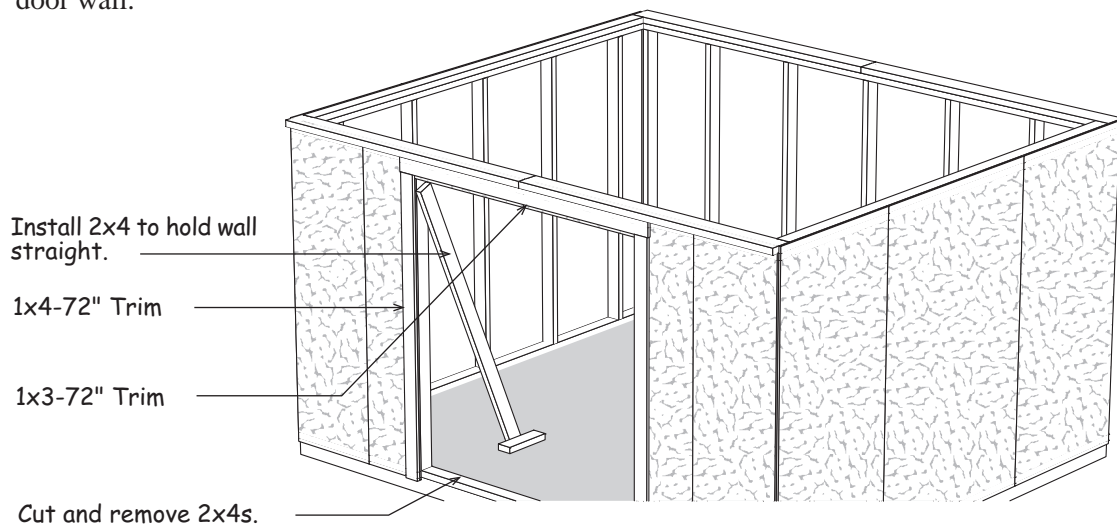
Step 10   Install Trim

1. Install (2) two 1x3-62" long trim boards flush with the top of the front wall. Use 6d galv. nails.
2. Install 1x4-75 3/4" trim boards at the corners of the front and back. Install the trim flush with siding on the end wall.
3. Install 1x4x74-3/4" trim boards at the corners of the front wall.

2x6 Tie Plates

1x3-62" Trim Boards

DOOR WALL

1x4-75 3/4" Trim Board

1x4-74 3/4" Trim Board
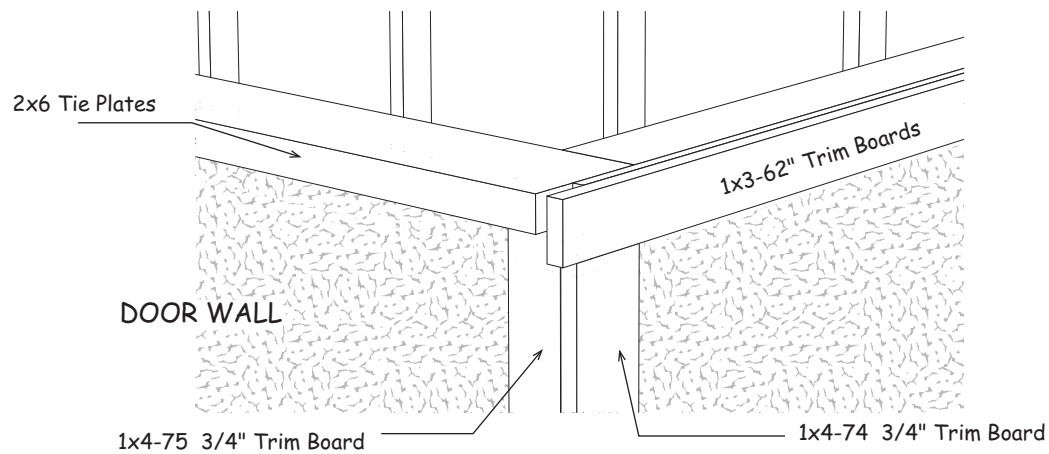
Step 11   Set Left Gable

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

Gable Siding

1x3 Trim
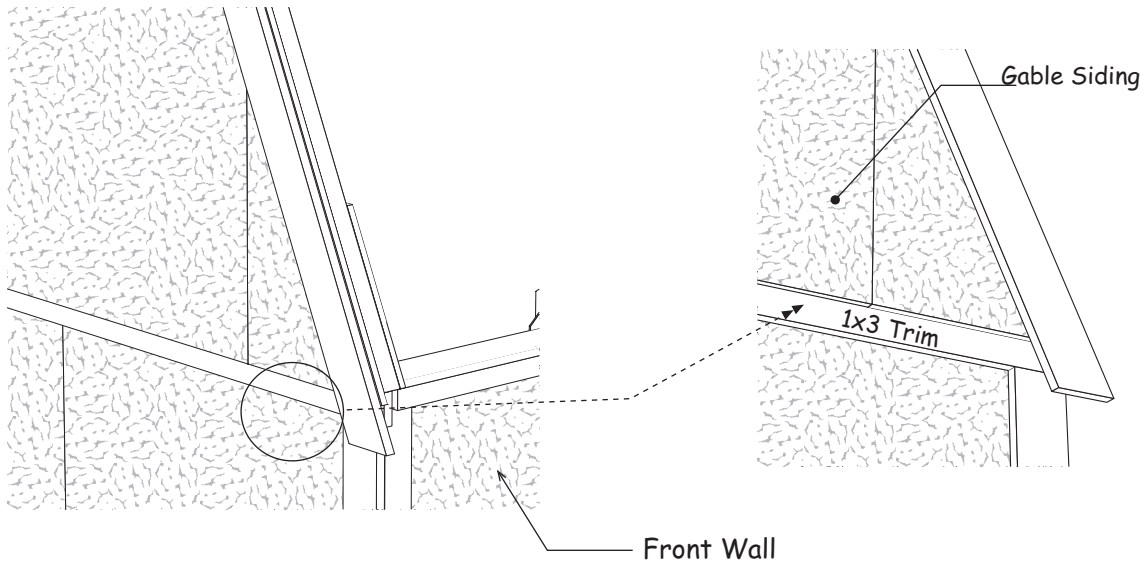
Front Wall

Step 12   Set Trusses

1.   Layout the truss spacing on the front wall. Start at the left corner of the building. Measure from the inside face of the wood gusset when marking the location of the first truss. See next page.

2.   Locate the truss hangers, there are left and right hangers. Select the right hangers.

3.   Using 1-1/2" hanger nails, install the right hangers to the 2x6 tie plate.
      The top hanger flange should line up with the 'X' mark.

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

2x6 Tie Plate

Long Side Nailed
to Wall Plates

Inside of Building
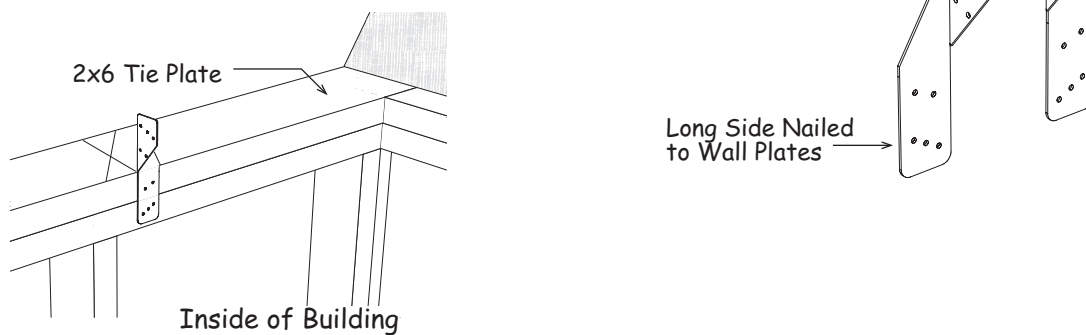
Step 12   Set Trusses Continued

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

Wood Gusset

Left Gable

19"

24"

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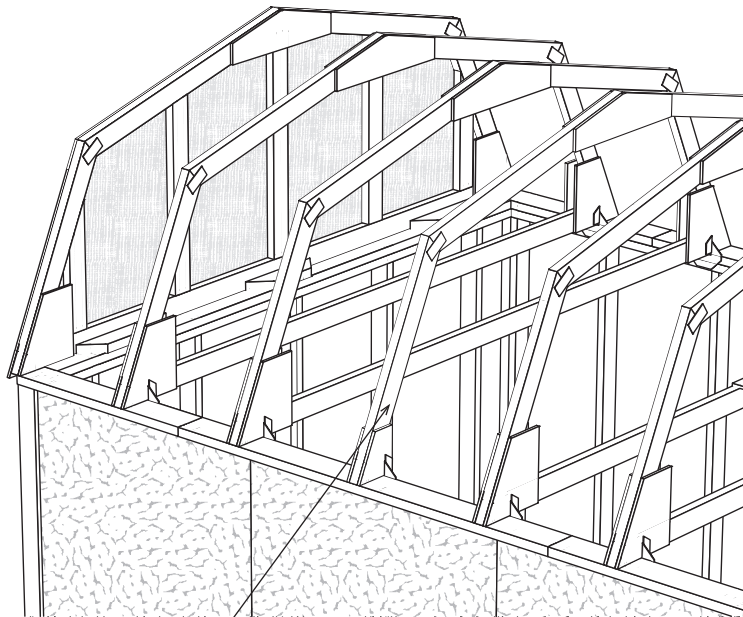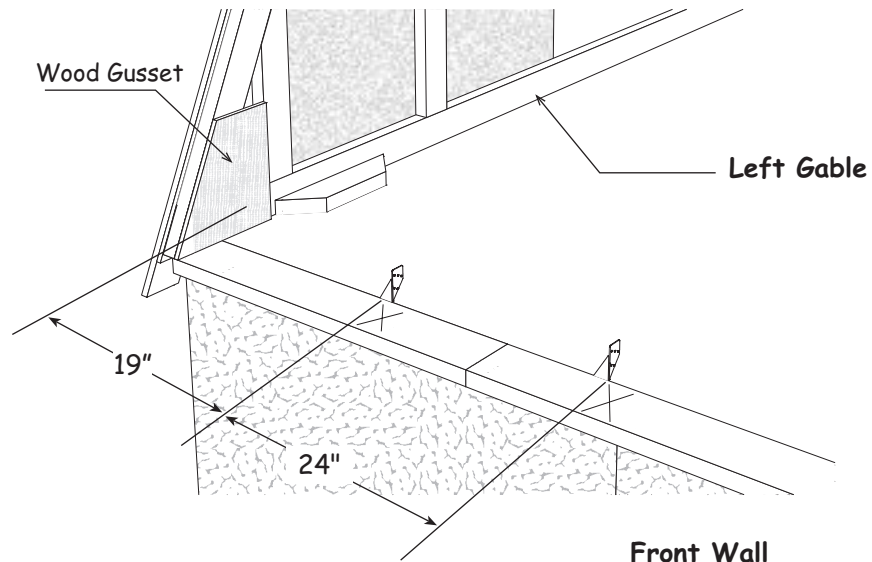
☞ Note: The center truss will
   not have a bottom cord.

Step 13   Install Trusses & Loft Floor

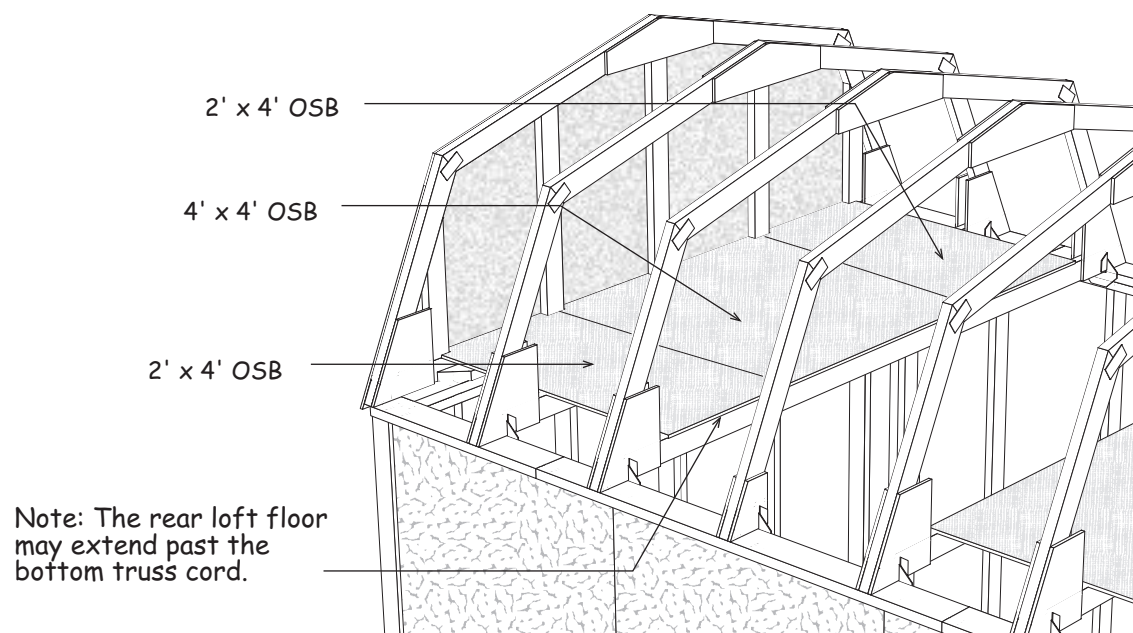1. Install front gable.

2. Install OSB loft flooring over the left side and right side trusses. Notch the flooring around the gable studs on the left and right gables. Secure floor with 6d common nails spaced 12" apart.

2' x 4' OSB

4' x 4' OSB

2' x 4' OSB

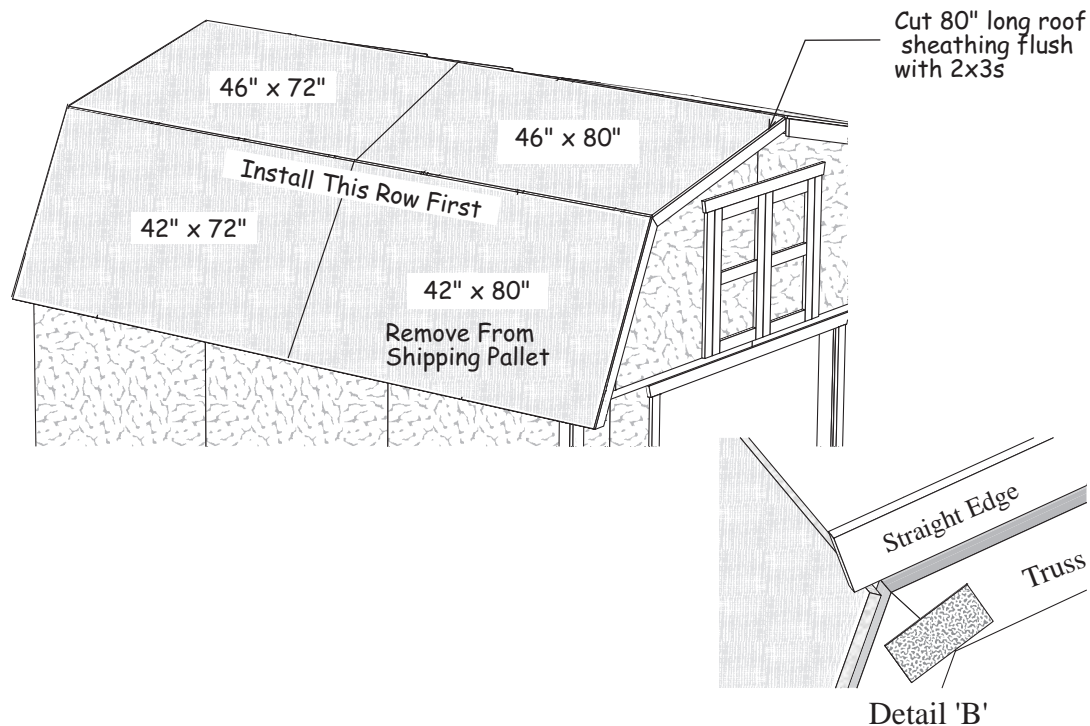Note: The rear loft floor may extend past the bottom truss cord.

Step 14   Install Roof Sheathing

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

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

1.   Working from left gable install a 42" x 72" OSB sheet against back of trim.

2.   Install a 42" x 80" and cut to fit flush with face of 2x3 board on right side gable.

3.   Install upper sheeting next cutting 80" to be flush with face of 2x3.

4.   Install 1x4 gable trim.

Cut 80" long roof sheathing flush with 2x3s

46" x 72"

46" x 80"

Install This Row First

42" x 72"

42" x 80"

Remove From Shipping Pallet

Straight Edge

Truss

Detail 'B'

Install Shingles - not included in kit

Install roof shingles per instructions on outside of wrapper.

|	
Roof Shingles	7 bdl.
Roof 'drip' Edge	6 pcs.

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

Shingles

Truss

Air Space
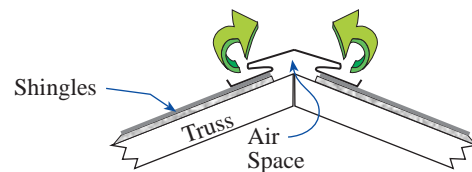
Step 15   Install Doors & Hardware
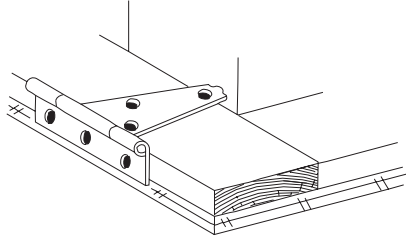
1. Lay the <u>left door</u> with the trim facing up. The siding on the left door <u>extends past the door trim</u>. See detail below.

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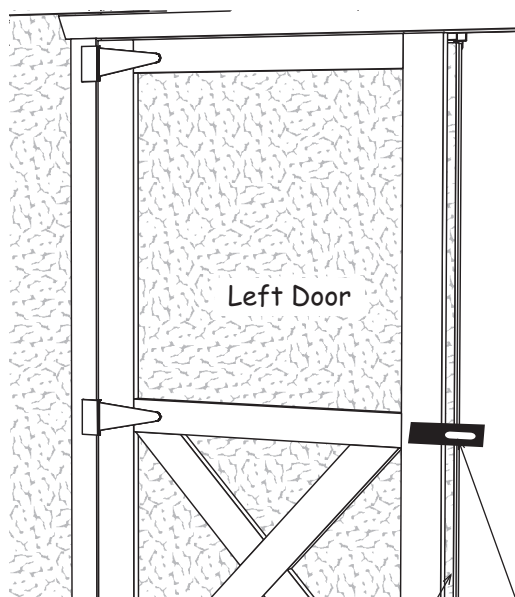
4. Before fastening the hinges to the side trim, temporarily prop the doors in the opening. Leave a space at the top and bottom of the doors and between the doors and the side trim to allow room for the doors to expand due to humidity.

   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.
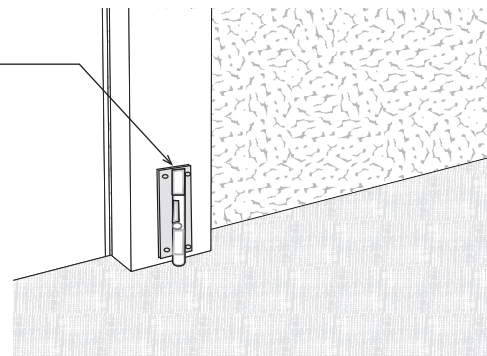
Left Door

Siding Extends Past Trim
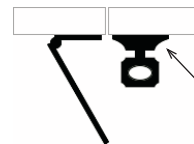
Fold Hasp to Cover Screws

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.

Meadowbrook and Woodville 10'x 12' Barn kit

Qty.	2x4 & 2x6 Framing	Size		Qty.	Description	Size	
4	Wall Plates	120 "			**Trim**		
8	Truss - Bottom Cords	116 1/4"		4	1x4 Gable Trim	47 1/2"	
31	Wall Studs	72 "		4	1x4 Gable Trim	43 "	
4	Wall Plates	68 1/2"		4	1x4 Corner Trim	75 3/4"	
4	Wall Plates	65 1/2"		4	1x4 Corner Trim	74 3/4"	
4	Wall Plates	56 1/2"		2	1x4 Door Trim	72 "	
1	Gable Studs & Framing	36 "		1	1x3 Top Door Trim	72 "	
1	Gable Studs & Framing	42 "		4	1x3 Lower Wall Trim	62 "	
4	Gable Studs & Framing	34 1/4"		2	1x3 Loft Door Trim	29 1/4"	
4	Gable Studs & Framing	21 1/2"		1	1x3 Loft Door Trim	43 "	
6	Gable Nailing Blocks	15 3/4"			**Exterior Siding & Soffit**		
4	2x6 Tie Plates	70 1/2"		3	48" x 77-1/4"	2	12" x 77-1/4"
				2	36" x 77-1/4"	4	48" x 75-3/4"
				2	16" x 77-1/4"		
	2x3 Framing			4	Siding for Roof Gables	48" x 48"	
4	Gable Overhangs	47 "		4	Siding for Roof Gables	16" x 30"	
4	Gable Overhangs	42 1/4"		1	Siding For Header 6" x 32-3/4" & 6" x 32-1/4"		
2	Gable Blocks	6 1/4"		4	8" x 48" Front Soffit Panels (Woodville model)		
	Pre-built Components				**Hardware**		
14	Pre-built Truss Halves			3	lb. 10d Sinkers	20	Truss Hangers
2	32" x 72" Pre-built Barn Doors			4	lb. 6d Galv.	75	Hinge Screws
2	18" x 29" Loft Door Frames			5	lb. 6d Common	1	Door Hasp
1	2x3 Door Header	67-1/2"		2	lb. Hanger Nails	2	4" Barrel Bolts
	Loft Floor & Roof Sheathing					2	6" Barrel Bolts
2	42" x 80"	2	42" x 72"			12	2-1/2" Screws
2	46" x 80"	2	46" x 72"	4	4" Door Hinges	36	1" Screws
2	48" x 48"	4	24" x 48"	6	5" Door Hinges	24	1-5/8" Screws
	Miscellaneous Lumber			22	1x4 Drive-on Plate		
12	Wood Truss Ridge Gussets	8" x 24"			**Miscellaneous**		
20	Wood Bottom Truss Gussets	12" x 12"		2	Center Truss Blocks w/gusset	3-1/2"x7-1/2"	

Roof Material by Owner	Roof Shingles	7 bdl.
	Roof 'drip' Edge	6 pcs.