

## Building An <br> Outdoor Playhouse

Project Level: Advanced

If you want to give the children in your family their own retreat and improve your do-it-yourself skills at the same time, this playhouse is the perfect project for you. Not only will you create a special hideaway, you will also practice framing, sheathing and roofing skills that could save you a bundle on large do-it-yourself projects down the road. And when your children outgrow their playhouse, it will make a great storage shed.

## Introduction

## Construction

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## I ntroduction

This is a fairly extensive project. For clarity, and to facilitate download time, links are provided within the text to the necessary drawings. We recommend that you print the drawings, as well as the text in this frame. Study both the text and drawings until you are comfortable with them before you begin.

The project will typically take a two-person crew at least seven days to complete. Build it in stages and have a good tarp on hand to protect your work from harsh weather until the playhouse is fully under roof. The finished playhouse measures $7^{\prime} 9^{\prime \prime}(\mathrm{L}) \times 8^{\prime}(\mathrm{W}) \times 8.5^{\prime}(\mathrm{H})$. Many towns do not require building permits for outbuildings smaller than a 10' cube. However, you should still check with your city or county building department for local code requirements.

Although you can cut your framing materials with a circular saw, a miter saw will save time and create more accurate cuts. We used a 12" Heavy Duty Compound Miter Saw because it is large enough to cut through $2^{\prime \prime} \times 6 "$ and $4 " \times 4$ " lumber. For cutting plywood, we used a cordless circular saw and a cutting guide to help us make perfectly straight cuts. Make sure that any lumber that comes in contact with the ground is rated as such. All fasteners used in the project must be galvanized to resist rust.


## Construction

For specific information on required tools and materials for this project, see the Tools, Materials and Hardware
Lists page.

At the end of each day, make sure that your work site is clear of lumber and fallen nails. Untidy building sites, especially in play areas, can cause accidents.

## Day 1: The Floor

## Step 1: Site Preparation

Select a site that is fairly level and has good drainage. Using a tape measure and a framing square, measure an 8' x 8' square. Check that your site is perfectly square by measuring the diagonals. If they each measure 11' 6', your site is a perfect 8' square.

## Step 2: Outer Frame

Use two 8' lengths of 2" x 6" lumber rated for outdoor use for the front and rear rim joists. From two more $8^{\prime}$ lengths of $2^{\prime \prime} x$ 6"lumber rated for outdoor use, cut two pieces of $2^{\prime \prime} \times 6^{\prime \prime} \times 7^{\prime \prime} 6^{\prime \prime}$ for the side rim joists. Assemble the outer frame by nailing through the front and rear rim joists into the side rim joists, using two 12d 3 1/4" common nails for each corner. See Figure 1.

## Step 3: Leveling the Site

Level the ground under your floor frame using a shovel and a rake. Check your level by placing a 4'-long carpenter's level on top of the rim joists (you may have to prop up a corner of the floor with a brick or a patio block). After the site is level, move the frame away and spread a sheet of polyethylene film over the site to prevent vegetation from growing. Move the frame back into place.

Step 4: Inner Frame Joists (see figure 1)
From 8' lengths, cut five pieces of 2" x 6" x 7' 9" lumber rated for outdoor use for the floor joists. Measure from the outer rear corners of the frame, and locate the centers of the inner floor joists at 16", 32", 48", 64" and 72". Use two 12d 3 1/4" galvanized common nails to secure each end of the inner floor joists to the side rim joists. Measure the gaps between the inner floor joists and cut lengths of 2" x 6" lumber rated for outdoor use to fit between each pair of joists. Nail the blocks into place near the middle of the floor joists. Every second block should be offset slightly to facilitate nailing.

## Step 5: Plywood Floor

Set one 4' x 8' sheet of 3/4" CDX plywood (exterior rated) on the frame, with one edge of the sheet flush with the rear rim joist. Use the plywood as a guide to square up your frame. The front edge of the plywood sheet should fall exactly at the center of the floor joist that was secured at 48" on center. Fasten the plywood to the joists with 1 5/8" \#6 coated deck screws at 8" intervals around the perimeter and at 12" intervals in the center of the plywood. Mark and cut the second sheet of 3/4"CDX plywood in half lengthwise. Put one half aside for later use as the door. Set the other half on the floor joists next to the full plywood sheet, leaving a 1/16" gap between the two sheets. Secure the halfsheet to the floor joists with $15 / 8 " \# 6$ coated deck screws.

Day 2: Framing (see figure 2)
Build the walls on the ground, stand them up and then nail them into place.

## Step 1: Wall Studs

Cut nineteen 5' 6" lengths of 2 " $\times 4^{\prime \prime}$ from 12 ' lengths for the wall studs.

## Step 2: Rear Wall

Use two 8' lengths of 2" $\times 4$ " for the top and bottom plates. Space the studs 2' on center between the top and bottom plates and secure the studs by nailing through the plates with 8d 2 1/2" galvanized common nails. Cut four $2^{\prime \prime} \times 4^{\prime \prime} \times 211 / 2^{\prime \prime}$ pieces and nail them, horizontally, between the studs about halfway up the wall.

Set the rear wall in place directly over the rear rim joist and floor. Nail the rear wall into place with 16d 3 1/2" galvanized common nails, driven through the wall's bottom plate and the floor and into the rim joist. Temporarily prop up the rear wall with an 8 '-long $2 " \times 4$ ". Rest one end on the ground and nail the other at an angle into the right-side stud of the back wall, at a height of about 4'.

## Step 3: Side Walls

The two side walls are identical. Our windows required a 17 $3 / 4$ "-wide $\times 151 / 4$ "-high opening. If you use different windows, adjust the distance between the two center studs. In doing so, make sure you have a stud centered at 4' from the back of the playhouse to use as a nailer for the edges of the sheathing boards. Since the side walls will be mounted $31 / 2$ " from the back of the playhouse, the middle nailers should be centered at 44 1/2" from the back of the side walls.

Cut four 2" x 4" x 65" pieces from 12' lengths for the top and bottom plates. Nail the plates to the end studs with two 8d 2 $1 / 2^{\prime \prime}$ common nails at each joint. Nail one stud on center at 44 $1 / 2^{\prime \prime}$ from the back of each side wall. Nail another stud at the appropriate distance for the window framing.


Set one side wall in place, butted up against the end of the rear wall and flush with the edge of the side rim joist. Nail the wall into place with 16d 3 1/2" nails. Use a level to make sure that the wall is plumb and then secure it to the end of the back wall with 8 d 2 1/2" common nails. Repeat for the other side wall.

Step 4: Front Wall
Use two 2" x 4" x 8' pieces for the top and bottom plates. Fasten a stud to each end of the top plate by nailing through the plate into the stud, using two 8d $21 / 2^{\prime \prime}$ common nails at each joint. Fasten the bottom plate to the two end studs with 8 d 2 1/2" common nails. Fasten another stud 22" from the right end of the front wall for the edge of the doorway. Fasten a fourth stud so that it is centered $48^{\prime \prime}$ from each side of the wall. This will serve as the second stud for the doorway and as a nailer for the left front sheathing. The other two studs serve as framing for the front window. We spaced them $173 / 4^{\prime \prime}$ apart so that their centers were $61^{\prime \prime}$ and $791 / 4^{\prime \prime}$ from the right side of the wall (adjust for different window sizes).

Set the front wall in place, butted up against the side walls and flush with the edge of the plywood floor. Nail the front wall to the floor with 16d $31 / 2^{\prime \prime}$ common nails. Make sure the front and side walls are plumb and nail their end studs together with 8d 2 $1 / 2^{\prime \prime}$ common nails.

## Step 5: Porch Posts

Cut three 4" x 4" x 6' 2-1/2" pieces of lumber rated for outdoor use for porch posts. Cut a $31 / 2^{\prime \prime}$-long by $11 / 8$ "-deep notch at the top of the front face of each post. The easiest way to do this is to make a series of $11 / 8^{\prime \prime}$-deep cuts in the face about $1 / 2^{\prime \prime}$ apart, break out the cuts and clean out the excess wood with a 2"-wide, sharp chisel.

Cut 5 1/2"-long, 1 1/8"-deep notches on the bottom front faces of the posts, at the bottom left side of one post and at the bottom right side of another post.
Stand the left post inside the rim joists at the front left of the playhouse. The notches will allow the base of the post to be flush with the left and front rim joists. Have a helper hold the post plumb. Secure the post to the floor frame by nailing through the rim joists with four 12d 3 1/4" common nails. Repeat for right post.

Stand the center post inside the front rim joist with its center at $50 "$ from the right side of the frame. The notch allows the base of the post to be flush with the front of the rim joist. Secure it to the rim joist with two 12d $31 / 4^{\prime \prime}$ common nails.

## Step 6: Top Plates

Insert one 2" x 4" x 8' into the top notches of the front posts as a ledger board. Check that the posts are plumb and secure the ledger to each post with two 2 1/2" \#7 deck screws.

Cut two 2" x 4" x 7' 9" pieces from 8' lengths for the lateral top plates. Set one on top of each side wall, overlapping the splice between the back and side walls and stretching to the front edge of the post. Using ten 12d $31 / 4^{\prime \prime}$ common nails, secure each side plate by nailing into the post, the back wall splice and the top of the side wall.

Cut three 2" x 4" x 7' 5" pieces from 8' lengths for the front, middle and rear plates. Set them in place between the side plates and over the front wall, the rear wall and the ledger. Using ten 12d $31 / 4$ " common nails, secure the plates.

## Step 7: Window and Door Framing

Cut six lengths of 2" $\times 4$ " to serve as window nailers. Our nailers are $173 / 4$ " wide, to bridge the distance between the two studs that serve as side framing for the windows. Using two 8d 2 1/2" galvanized common nails at each joint, fasten the lower nailer between the two studs, 24 " from the floor. Check that the nailer is level before securing it.
Fit a window into the opening, resting on the lower nailer. Set the top nailer in place over the window. Remove the window and fasten the top nailer with $8 \mathrm{~d} 21 / 2^{\prime \prime}$ galvanized common nails, driven through the studs into the nailer. Repeat for the other two windows.
Cut one 2" x 4" x 2' for the header above the front door. Insert the header between the two front door studs at a height of $5^{\prime}$ from the floor. Make sure that it is level and then fasten the header in place, with two 8d 2 1/2"galvanized common nails, driven through the studs into each end of the header.

## Day 3: Roof Framing (see figure 3)

## Step 1: The Ridge Beam

Use one 2 " $\times 6$ " $\times 8$ ' board for the roof ridge beam. Use 1 1/2" galvanized joist hanger nails to secure five ridge rafter connectors to each side of the ridge beam. Starting from the front end of the beam, locate the centers of the connectors at 2", 24", 48", 72" and 93".

## Step 2: Hurricane Ties

To ensure that the rafters are secured to the proper locations on top of the two side walls, set the ridge beam on top of each side wall in succession, allowing the beam to overhang $11 / 2^{\prime \prime}$ in the front and $11 / 2^{\prime \prime}$ in the back. Mark the top of each side wall at the center of each ridge rafter connector. Secure hurricane ties to the top of each side wall at the ridge rafter marks, using 1 $1 / 2^{\prime \prime}$ galvanized joist hanger nails. Make sure the prongs of the ties are facing outward and protrude over the edges of the plates.

## Step 3: Porch Ceiling

Cut one 4' x $8^{\prime}$ sheet of 5/8" T-111 tongue and groove sheathing in half, lengthwise, for the porch ceiling. Set half the sheet, groove-side down, over the front wall and flush with the front edge of the posts. Mark the location of the front hurricane ties on the sheathing and cut $13 / 4$ "-wide, $13 / 4$ "-deep notches in the sheathing at each hurricane tie location. Set the sheathing back in place and secure it to the wall plates with $15 / 8^{\prime \prime} \# 6$ coated deck screws every 6 " around the perimeter.

## Step 4: Front Ridge Support Post

Cut one $2^{\prime \prime} \times 4^{\prime \prime} \times 177 / 8^{\prime \prime}$ piece for the front ridge support post. Using 1 1/2" joist hanger nails, secure one 2 " x 6" fence bracket to the top edge of the ridge beam support post, flush with the front of the post, as shown in Figure 3. Secure the support post to the center of the porch ceiling, flush with the front edge, using a $2^{\prime \prime} \times 4^{\prime \prime}$ fence bracket and 1 1/2" joist hanger nails.

## Step 5: Rear Ridge Beam Support Post

Cut one $2^{\prime \prime} \times 4^{\prime \prime} \times 181 / 2^{\prime \prime}$ piece for the rear ridge beam support post. Prepare the top of the post as outlined in Step 4. Center a 2" x 4" fence bracket over the rear wall plate, flush with the rear edge of the plate. Secure the bracket and post as outlined in Step 4.

## Step 6: Fastening the Ridge Beam

Set the ridge beam, rafter connector-side up, into the $2^{\prime \prime} \times 6$ " fence brackets. The beam should overhang the posts by 2 " in the front and 1" in the back. Using 1 1/4" \#6 deck screws, secure the beam to the brackets.

## Step 7: The End Rafters

A miter saw is particularly useful for cutting the rafters. They are 55 1/2"-long parallelograms, cut from 2" x 4" lumber. Cut ten rafters at $671 / 2^{\circ}$ angles, as shown in Figure 3. Using one 1 1/4"
 \#6 deck screw, secure one rafter to each of the front ridge rafter connectors and set the other end of each rafter into the appropriate hurricane tie. Use a torpedo level to bring the front ridge beam support post to a plumb position. Secure each front rafter to its hurricane tie with one 1 1/4" \#6 deck screw. Repeat for rear rafters.

## Step 8: Securing the Rafters

Insert the remaining rafters into the ridge rafter connectors and hurricane ties. Using 1 1/2" galvanized joist hanger nails, fasten all rafters to the hurricane ties and rafter connectors. It is vital to use all of the fastening holes in the connectors, as this will increase the strength and snow-bearing capacity of the roof.

## Day 4: Decking \& Sheathing (see figure 4)

## Step 1: Decking

Cut 17 pieces of $5 / 4^{\prime \prime} \times 6^{\prime \prime} \times 21^{\prime \prime}$ for the front deck boards. Notch one deck board to fit around the left post and secure it to the front and left rim joists and the floor joist with 2" \#7 deck screws. Use two 16d $31 / 2^{\prime \prime}$ common nails as spacers between deck boards and secure all deck boards in place. You will need to notch two boards to fit around the center and right posts. You will also have to trim the right decking board to make it flush with the right rim joist.

## Step 2: Rear Wall Sheathing

Position two 4' x 8' sheets of T-111 tongue-and-groove sheathing vertically, so that they fit together at the center stud of the rear wall and reach the top of the ridge. Using two 6d 2" finishing nails, hammered through the sheathing and about 1" into two studs, tack each rear sheathing board into position. The boards will be bent slightly at the top because the ridge beam hangs over the rafters. Mark each sheet of sheathing for the ridge beam notch. Remove the sheathing and cut the notches. Tack the sheathing back into place and mark the sheets for the gable cuts.

Cut the sheathing for the rear gable and use the two sheets as templates for marking the front gable angles on two other sheets of sheathing, making sure that the front gable sheathing boards meet with a tongue on one side and a groove on the other. Mark the sheathing for the location of wall studs and then secure the sheathing to the rear wall with $13 / 4$ " galvanized ring shank nails, spaced 6" apart around the perimeter and 12" apart on the rest of the board.

## Step 3: Side Wall Sheathing

Cut two 2' x 6' pieces of T-111 sheathing from one 4' x 8' sheet. Butt the straight edge of one board against the front edge of the playhouse and push the sheathing up until it is $1 / 16^{\prime \prime}$ from the bottom of the rafters. Fasten it to the front wall stud and the top and bottom wall plates with 13/4" galvanized ring shank nails at 6 " intervals. Do not secure the sheathing to the stud that is 48" from the rear wall at this point.

Cut the front gables from the tops of the two previously marked sheets of sheathing. You will have two 4' x 6' sheets left that should be used as the side wall sheathing. Attach, using 1 3/4" ring shank nails.

## Step 4: Front Wall Sheathing

Fasten the two gable sheathing pieces to the front gables, using 1 3/4" ring shank nails. Cut one sheet of T-111 sheathing to a height of $681 / 2^{\prime \prime}$ and secure it to the left side of the front wall, using 1 3/4" ring shank nails. Cut a 68 1/2"-high piece of sheathing from the $2^{\prime} \times 8^{\prime}$ piece that was left from the front shelf cut. Nail it to the left front side of the playhouse with $13 / 4$ " ring shank nails. Cut a $2^{\prime} \times 9^{\prime \prime}$ piece of sheathing and nail it to the
door header, top plate and door studs with 1 3/4" ring shank nails.

## Day 5: Roof Deck (see figure 5)

## Step 1: Laying Out the Deck

Cut four $4^{\prime} \times 4^{\prime} 11^{\prime \prime}$ pieces of $1 / 2^{\prime \prime}$ plywood sheathing from the four 4' x $8^{\prime}$ sheets. Snap chalk lines down the centers of the middle rafters on each side of the roof. Those lines should be exactly 4' from each end of the ridge beam. Stand on the front shelf and carefully position the left front piece of sheathing so that one side meets the center of the left middle rafter. The top end of the sheet should be positioned directly over the center of the ridge board. Tack the sheet in place, using two 6d 2" finishing nails, driven to a depth of about 1" through the deck board and into the rafters.

## Step 2: Fitting the Deck Sheets

Set the second deck sheet in place next to the first sheet, leaving a $1 / 16^{\prime \prime}$ gap between the two sheets. Tack the sheet in place with two 6d 2" finishing nails. Set the right rear roof deck sheet in place and make sure that the sheets meet at the ridge. If they do not, adjust the sheets until they do. Do not tack the right rear deck sheet at this time.

## Step 3: Nailing the Roof Deck

Remove the right rear roof deck sheet. This will allow you to stand on a ladder inside the playhouse to secure the left deck boards. Snap chalk lines on the two left roof deck boards to mark the positions of the rafters. Using 6d 1 7/8" coated cooler nails, fasten the roof deck boards to the rafters. The nails should be positioned at 6" intervals around the perimeter and at 12" intervals in the centers of the sheets.

Secure the right roof decking boards in the same way. To secure the front right board, you will need to sit on the peak of the roof.

## Step 4: Drip Edge

Cut two 8' 2" pieces of drip edge. Secure them to the left and right edges of the roof deck with 7/8" roofing nails.

## Step 5: Rake Boards

Cut two pieces of $1^{\prime \prime} \times 2^{\prime \prime} \times 4^{\prime} 10^{\prime \prime}$ boards at $671 / 2^{\circ}$ angles from a $12^{\prime}$ length for the rake boards. They are parallelograms that match the angles of the rafters. Using five 1 5/8" \#6 deck screws, driven through the roofing deck, fasten the rake boards flush with the front edges of the roofing deck.

## Day 6: Roofing

Wear sneakers when roofing on a warm day. Since the materials are designed to bond together by melting slightly in warm weather, heavy, hard shoes can mar the shingles. Do as much work as you can from a ladder and then sit on the roof for the remainder of the work.


Step 1: Roofing Felt
Snap chalk lines across each side of the roof deck, 34 " and 50" up from the drip edges. Place a 36'-long roll of roofing felt at one corner of the deck. Roll it out along the first chalk line, extending over the front and rear of the deck by 2 ". Cut the felt with a sharp utility knife. Staple the roofing felt down with 9/16" staples, spaced about 18" apart. Roll out and staple down the next course of felt, along the second chalk line, overlapping the first courses by about 8". Repeat for the other side of the roof. Roll out and staple down the ridge course, overlapping the second courses on both sides by about 10".

## Step 2: Shingles

Since asphalt roof shingles vary from manufacturer to manufacturer, carefully read the instructions provided with your shingles. In general, three bundles of asphalt shingles is enough material to cover a 100-square-foot area, or slightly more than is needed to cover this playhouse roof.

To ensure that nails do not protrude into the playhouse, secure the shingles with 7/8"-long roofing nails. Cut shingles on the smooth side, using a sharp utility knife. If you follow the manufacturer's instructions carefully, you should have only two exposed roofing nails on the ridge. They must be covered with roofing cement.

Day 7: Windows, Doors \& Trim (see figure 6)

## Step 1: Window Openings

From inside the playhouse, drill $1 / 2^{\prime \prime}$ holes through the sheathing in the four corners of the rectangular window frames. Use a framing square to draw lines for each window on the outer sheathing, linking the four holes for each window. Cut out the window rectangles. We used a cordless circular saw to make the cut. It can also be done with a saber saw.

## Step 2: Inserting Windows

Caulk liberally along the inside flange of each window and then secure it in place according to the manufacturer's instructions.

## Step 3: Door Opening

Using a handsaw, cut away the bottom plate of the doorway framing in the front wall. Cut one $2^{\prime}$ piece and two 5' pieces of 1" x 4" Ponderosa Pine from a 12' length for the top and sides of the door jamb. Using 6d 2" finishing nails, join the top piece to each of the $5^{\prime}$ jamb sides. Set the jamb in the door opening and nail it in place with 6d 2" finishing nails. Although it is preferable to make the door jamb level and plumb for the sake of

appearance, it is not really necessary because the door will mount over the jamb, rather than inside it.

## Step 4: Door

Cut a 1' 11 1/2" x 4' 11 $1 / 2^{\prime \prime}$ door from the remaining half-sheet of 3/4" CDX plywood.
Secure the door with 4" galvanized tee-hinges, mounted on the right side of the jamb on the outside of the playhouse. The hinges should be positioned 10" from the top and bottom of the door. When mounting the door, set it on a piece of scrap shingle to create a $1 / 8$ " clearance from the deck boards. If your playhouse is square, your door should fit inside the right and left pieces of T-111 sheathing.

## Step 5: Fascia

Cut two 7' 11" pieces of 1" x 4" Ponderosa Pine for the fascia boards to cover the exposed edges of the rafters. Secure them to the rafters with 6d 2 " finishing nails.

## Step 6: Exterior Corner Trim

Cut four 6' pieces of 1 " x 3" Ponderosa Pine and two 6' pieces of $1^{\prime \prime} \times 2$ " Ponderosa Pine from 12 ' lengths. Caulk the back of a 1 " $x$ 2 " piece and secure it lengthwise to the rear corner of the side wall, flush with the edge of the back wall and the bottom of the sheathing, using 6d 2" finishing nails. Caulk the back of a 1 " $\times 3$ " and secure it to the corner of the back wall, flush with the outer edge of the 1 " $\times 2$ " trim. Repeat for the other rear corner.

Cut two 5' 8 1/2" pieces of 1" x 2" Ponderosa Pine for the front wall corner trim. Caulk the back of a 1 " $\times 2$ " and secure it lengthwise to the right corner of the front wall, flush with the edge of the side wall, using 6d 2 " finishing nails. Caulk the back of a 1 " $\times 3^{\prime \prime}$ and secure it to the corner of the front wall, flush with the outer edge of the 1 " $\times 2$ " and the base of the sheathing. Repeat for the remaining corner.

## Step 7: Paint the Playhouse

Use a top-quality outdoor latex primer and top coat. We chose Enterprise ${ }^{\circledR}$ Severe Weather because it has a warrantee of 15 years. For a playhouse that blends with the exterior of your house, choose colors that are compatible with your home's color scheme. Or have fun and let your children select a color palette.

## Step 8: Finishing Touches

Since 18"-long shutters are difficult to find, we used shutters from two interior-wood shutter kits and secured them to the sheathing at the sides of the windows, with 11/4" \#6 deck screws. We fastened decorative fan brackets at the front corners of the playhouse, using 6d 2 " finishing nails. Using a saber saw, we made the scalloped valance from an 8' piece of 1 " x 6"

Ponderosa Pine, finished it off with a router and then nailed it in place with 6d 2" finishing nails. We also cut a hole in the door for a Plexiglas window and trimmed the rough opening with corner moulding.

## Tools

- Shovel $\mathbf{8}$
- Rake $\mathbf{8}$
- Miter saw $\mathbf{8}$
- Circular saw $\mathbf{B}$
- Drill/driver $\mathbf{D}$
- Tape measure $\mathbf{B}$
- Framing square
- 4' Level $\mathbf{~}$
- Torpedo level $\mathbf{1}$
- Hammer $\mathbf{E}$
- 2" Chisel $\mathbf{8}$
- Utility knife
- Metal snips
- Staple gun $\mathbf{8}$
- Chalk line
- Caulk gun
- Hand saw $\mathbf{B}$
- Paintbrushes $\mathbf{0}$


## Hardware List

## Quantity I tem

2 1-lb. boxes of 8d 2 1/2" galvanized common nails
2 1-lb. boxes of 12d 3 1/4" galvanized common nails
1 1-lb. box of 16d 3 1/2" galvanized common nails
1 1-lb. box of 1 1/2" galvanized joist hanger nails
2 1-lb. boxes of 1 3/4" galvanized ring shank nails
$2 \quad 1$-lb. boxes of $6 d 17 / 8 "$ coated cooler nails/sinker nails

2 1-lb. boxes of 7/8" galvanized roofing nails
1 1-lb. box of 6d 2" galvanized finishing nails
$1 \quad 100$-count box of $11 / 4^{\prime \prime}$ \#6 coated deck screws
1 100-count box of 1 5/8" \#6 coated deck screws
1 100-count box of 2" \#7 deck screws
10 hurricane ties
10 adjustable rafter ties
$2 \quad 2 " \times 6 "$ fence brackets

## Materials List

## Quantity Item

$1122^{\prime \prime} \times 6$ " $\times 8$ 8' lumber rated for outdoor use
$1 \quad 10 ' \times 10^{\prime}$ sheet of 1 mil. plastic film
2 4' x 8' sheets of 3/4" CDX plywood
18 2" $\times 4$ " $\times 12$ ' spruce
14 2" x 4" x 8' spruce
$344^{\prime \prime} \times 4^{\prime \prime} \times 8$ 8' lumber rated for outdoor use
$7 \quad 4^{\prime} \times 8$ ' sheets of $5 / 8^{\prime \prime} \mathrm{T}$ - 111 sheathing
$35 / 4^{\prime \prime} \times 6^{\prime \prime} \times 12^{\prime}$ lumber rated for outdoor use
4 4' $\times 8$ ' sheets of $1 / 2^{\prime \prime}$ sheathing
$1 \quad 36$ "-long roll of $15-\mathrm{lb}$. roofing felt
3 bundles of roofing shingles
small quantity of roofing cement
3 windows
3 tubes of caulking compound
5 1" x 4" x 8' Ponderosa Pine
$1 \quad 1^{\prime \prime} \times 4^{\prime \prime} \times 6^{\prime}$ Ponderosa Pine
2 1" x 3" x 12' Ponderosa Pine
1 1" x 6" x 8' Ponderosa Pine
3 1" $\times 2$ " $\times 12$ ' Ponderosa Pine
2 gallons latex primer
1 gallon latex top coat paint
2 quarts of accent colors, depending on color scheme
2 8' pieces of drip edge
4 decorative fan brackets (optional)

## Cut List

Quantity Item

## Day 1

2

2

5
$6 \quad 2 " \times 6 "$ blocks to fit between floor joists
$1 \quad 1 / 24^{\prime} \times 8$ ' sheets of 3/4" CDX plywood for floor

## Day 2

19 2" $\times 4^{\prime \prime} \times 5^{\prime} 6$ " for wall studs
$5 \quad 2^{\prime \prime} \times 4^{\prime \prime} \times 8$ ' for top and bottom of front and rear walls
2 2" $\times 4$ " $\times 7$ 7" for lateral top plates
$4 \quad 2 " \times 4$ " $\times 65$ " for top and bottom of side walls
6 nailers the width of windows
$4 \quad 2 " \times 4$ " $\times 211 / 2^{\prime \prime}$ nailers in rear wall
$1 \quad 2^{\prime \prime} \times 4$ " $\times 2^{\prime}$ for front door header
$3 \quad 2^{\prime \prime} \times 4 " \times 7$ 7" for front, middle and rear plates

3
4" x 4" x 6' 2-1/2" lumber rated for outdoor use for porch posts

## Day 3

1
1/2 4 ' $\times 8^{\prime}$ sheet of $5 / 8^{\prime \prime}$ T-111 sheathing for porch ceiling

## Day 4

$17 \quad 5 / 4^{\prime \prime} \times 6^{\prime \prime} \times 21^{\prime \prime}$ lumber rated for outdoor use for porch decking
$7 \quad 4^{\prime} \times 8^{\prime}$ sheets of $5 / 8^{\prime \prime} \mathrm{T}$ - 111 sheathing cut to size

## Day 5

$44^{\prime} \times 4^{\prime} 11^{\prime \prime}$ sheets for roof decking
21 " $\times 2^{\prime \prime} \times 4^{\prime} 10^{\prime \prime}$ Ponderosa Pine for rake boards
Day 7
1 1" x 4" x 2' Ponderosa Pine for top of door jamb

2 1" x 4" x 5' Ponderosa Pine for sides of door jamb
2 1" x 6" x 8' Ponderosa Pine for valance
2 1" x 4" x 7' 11" Ponderosa Pine for fascia
4 1" x 3" x 6' Ponderosa Pine
2 1" x 2" x 6' Ponderosa Pine
2 1" x 2" x 5' 8 1/2" Ponderosa Pine

1 $1^{\prime} 111 / 2^{\prime \prime} \times 4$ ' 11 1/2" piece of $3 / 4$ " CDX plywood for door

FIG 1


FIG 2


FIG 3


FIG 4


FIG 5


FIG 6


