LEAN-TO SHED PLANS

WoodPlansPDF

The lean-to is a classic outbuilding intended as a supplementary structure for a larger building. Its simple shed-style roof helps it blend with the neighboring structure and directs water away and keeps leaves and debris from getting trapped between the two buildings. When built to a small shed scale, the lean-to (sometimes called a closet shed) is most useful as an easy-access storage locker that saves you extra trips into the garage for often-used lawn and garden tools and supplies.

This lean-to tool bin is not actually attached to the house, though it appears to be. It is designed as a freestanding building with a wooden skid foundation that makes it easy to move. With all four sides finished, the bin can be placed anywhere, but it works best when set next to a house or garage wall or a tall fence. If you locate the bin out in the open—where it won't be protected against wind and extreme weather—be sure to anchor it securely to the ground to prevent it from blowing over.

As shown here, the bin is finished with asphalt shingle roofing, T1-11 plywood siding, and 1× cedar trim, but you can substitute any type of finish to match or complement a neighboring structure. Its 65"-tall double doors provide easy access to its 18 square feet of floor space. The 8-ft.-tall rear wall can accommodate a set of shelves while leaving enough room below for long-handled tools.

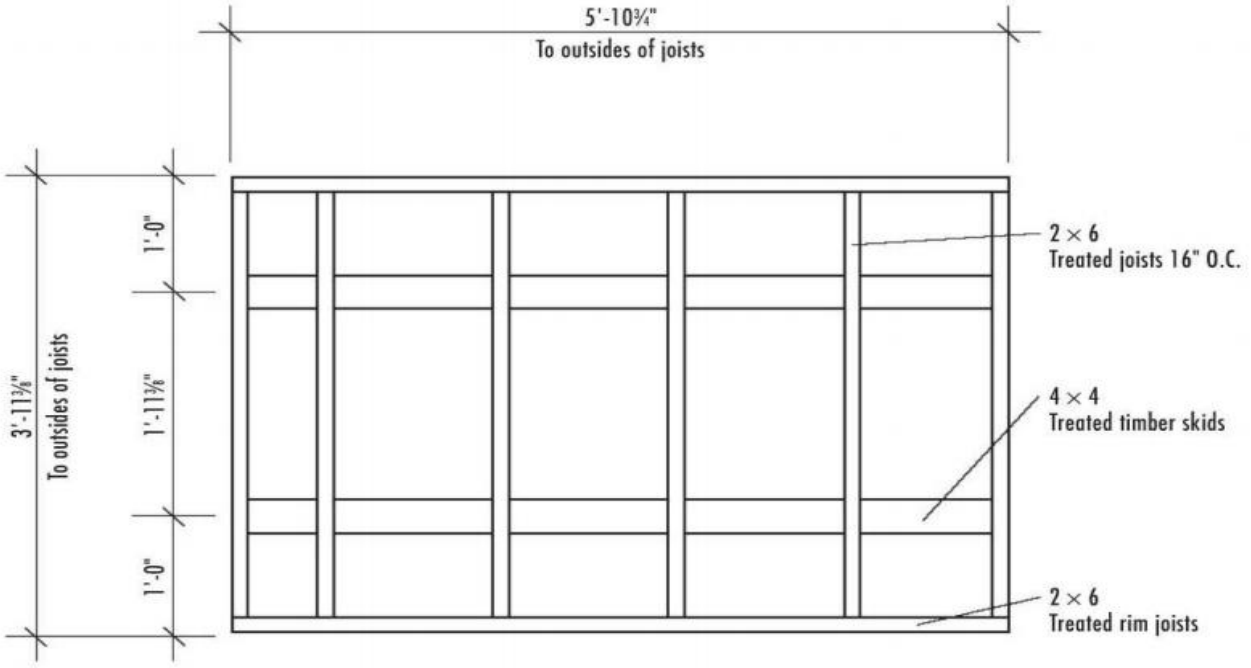
Because the tool bin sits on the ground, in cold climates it will be subject to shifting with seasonal freeze-thaw cycles. Therefore, do not attach the tool bin to your house or any other building set on a frost-proof foundation.

Description	Quantity/Size	Material
Foundation		
Drainage material	0.5 cu. yd.	Compactible gravel
Skids	2 @ 6′	4 × 4 treated timbers
Floor framing		
Rim joists	2 @ 6′	2 × 6 pressure-treated
Joists	3 @ 8′	2 × 6 pressure-treated
Floor sheathing	1 sheet @ 4 × 8	¾" tongue-&-groove ext.-grade plywood
Joist clip angles	4	3 × 3 × 3" × 16-gauge galvanized
Wall Framing		
Bottom plates	1 @ 8′, 2 @ 6′	2 × 4
Top plates	1 @ 8′, 3 @ 6′	2 × 4
Studs	14 @ 8′, 8 @ 6′	2 × 4
Header	2 @ 6′	2 × 6
Header spacer	1 piece @ 6′	½" plywood — 5" wide
Roof Framing		
Rafters	6 @ 6′	2 × 6
Ledger*	1 @ 6′	2 × 6
Roofing		
Roof sheathing	2 sheets @ 4 × 8′	½" ext.-grade plywood
Shingles	30 sq. ft.	250# per square min.
Roofing starter strip	7 linear ft.	
15# building paper	30 sq. ft.	
Metal drip edge	24 linear ft.	Galvanized metal
Roofing cement	1 tube	
Exterior Finishes		
Plywood siding	4 sheets @ 4 × 8′	⅜" Texture 1-11 plywood siding, grooves 8" O.C.

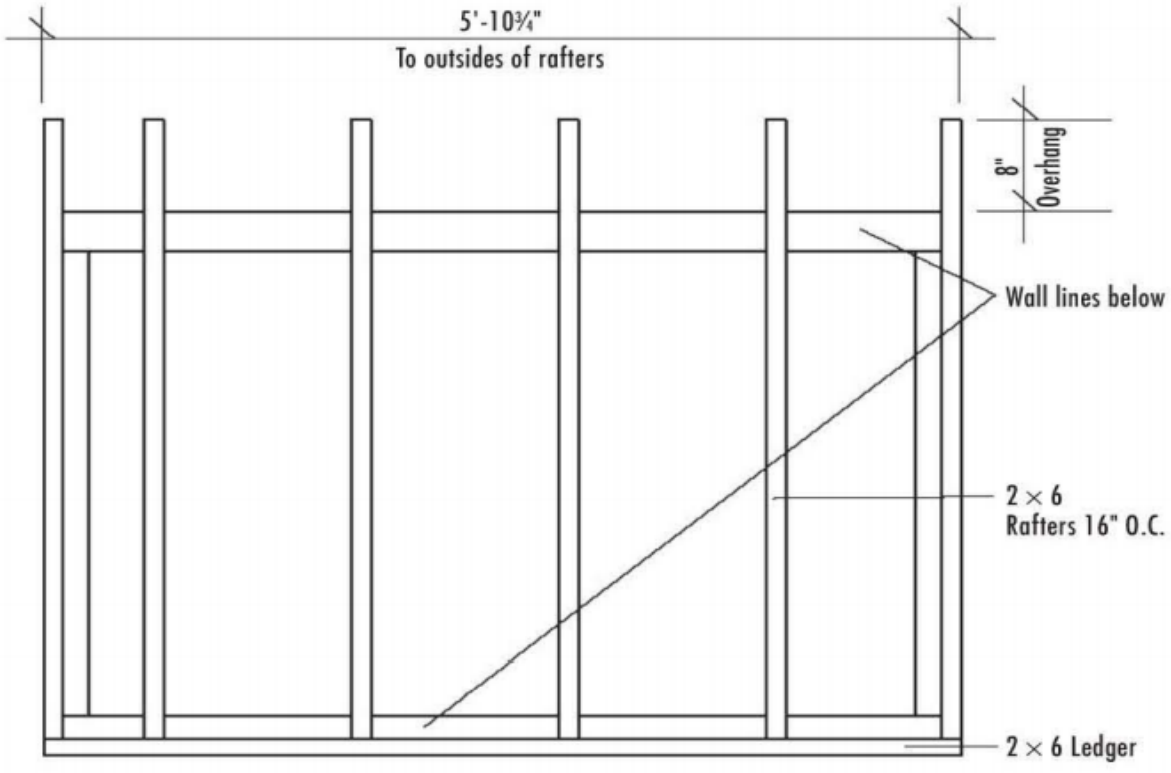
Description	Quantity/Size	Material
Door trim	2 @ 8′ 2 @ 6′	1 × 10 S4S cedar 1 × 8 S4S cedar
Corner trim	6 @ 8′	1 × 4 S4S cedar
Fascia	3 @ 6′ 1 @ 6′	1 × 8 S4S cedar 1 × 4 S4S cedar
Bug screen	8" × 6′	Fiberglass
Doors		
Frame	3 @ 6′	¾" × 3½" (actual) cedar
Stops	3 @ 6′	1 × 2 S4S cedar
Panel material	12 @ 6′	1 × 6 T&G V-joint S4S cedar
Z-braces	2 @ 10′	1 × 6 S4S cedar
Construction adhesive	1 tube	
Interior trim (optional)	3 @ 6′	1 × 3 S4S cedar
Strap hinges	6, with screws	
Fasteners		
16d galvanized common nails	3½ lbs.	
16d common nails	3½ lbs.	
10d common nails	12 nails	
10d galvanized casing nails	20 nails	
8d galvanized box nails	½ lb.	
8d galvanized finish nails	2 lbs.	
8d common nails	24 nails	
8d box nails	½ lb.	
1½" joist hanger nails	16 nails	
⅞" galvanized roofing nails	¼ lb.	
2½" deck screws	6 screws	
1¼" wood screws	60 screws	

**Note: 6-foot material is often unavailable at local lumber stores, so buy half as much of 12-foot material.*

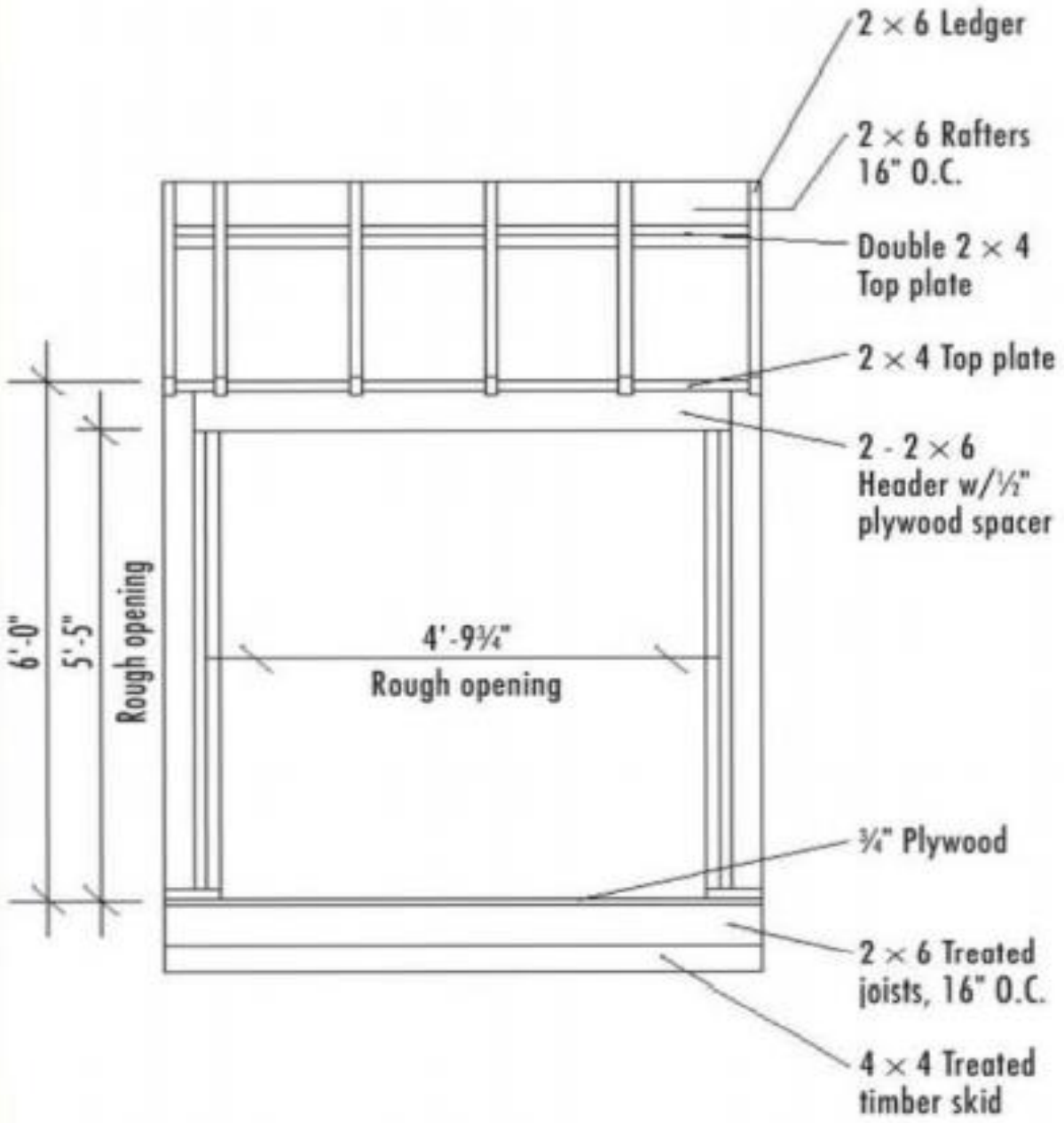
FLOOR FRAMING PLAN



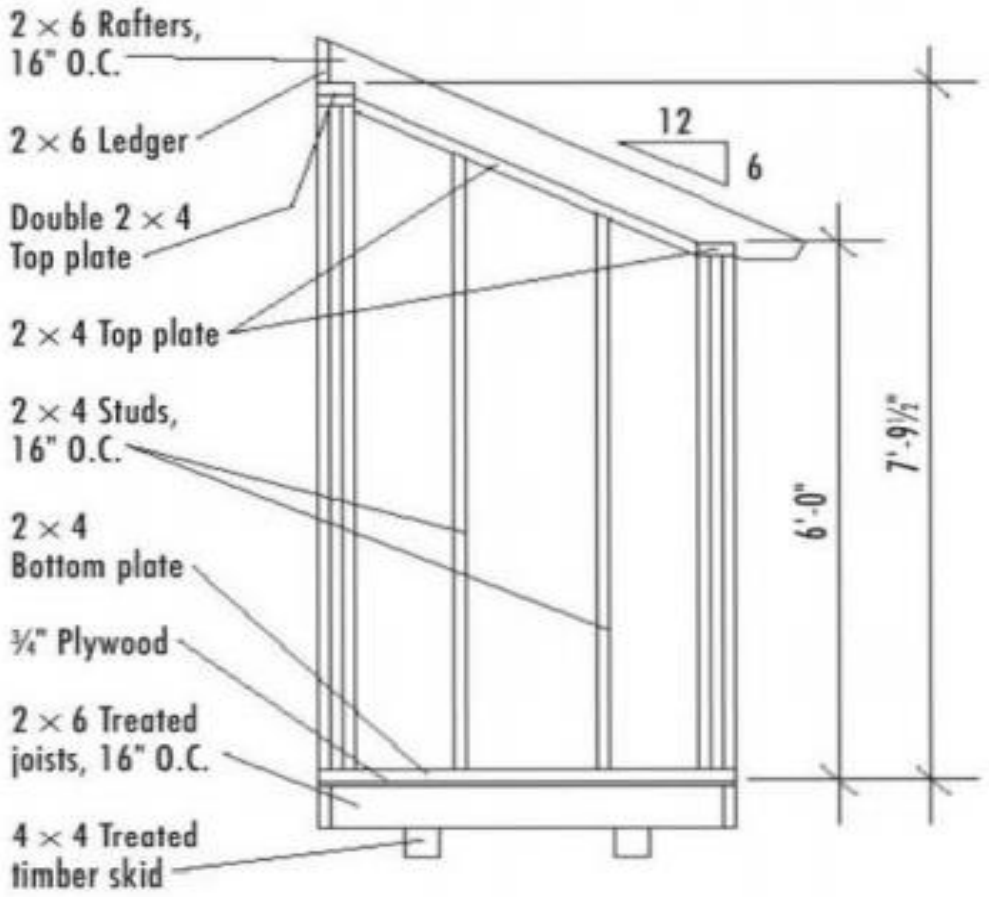
ROOF FRAMING PLAN



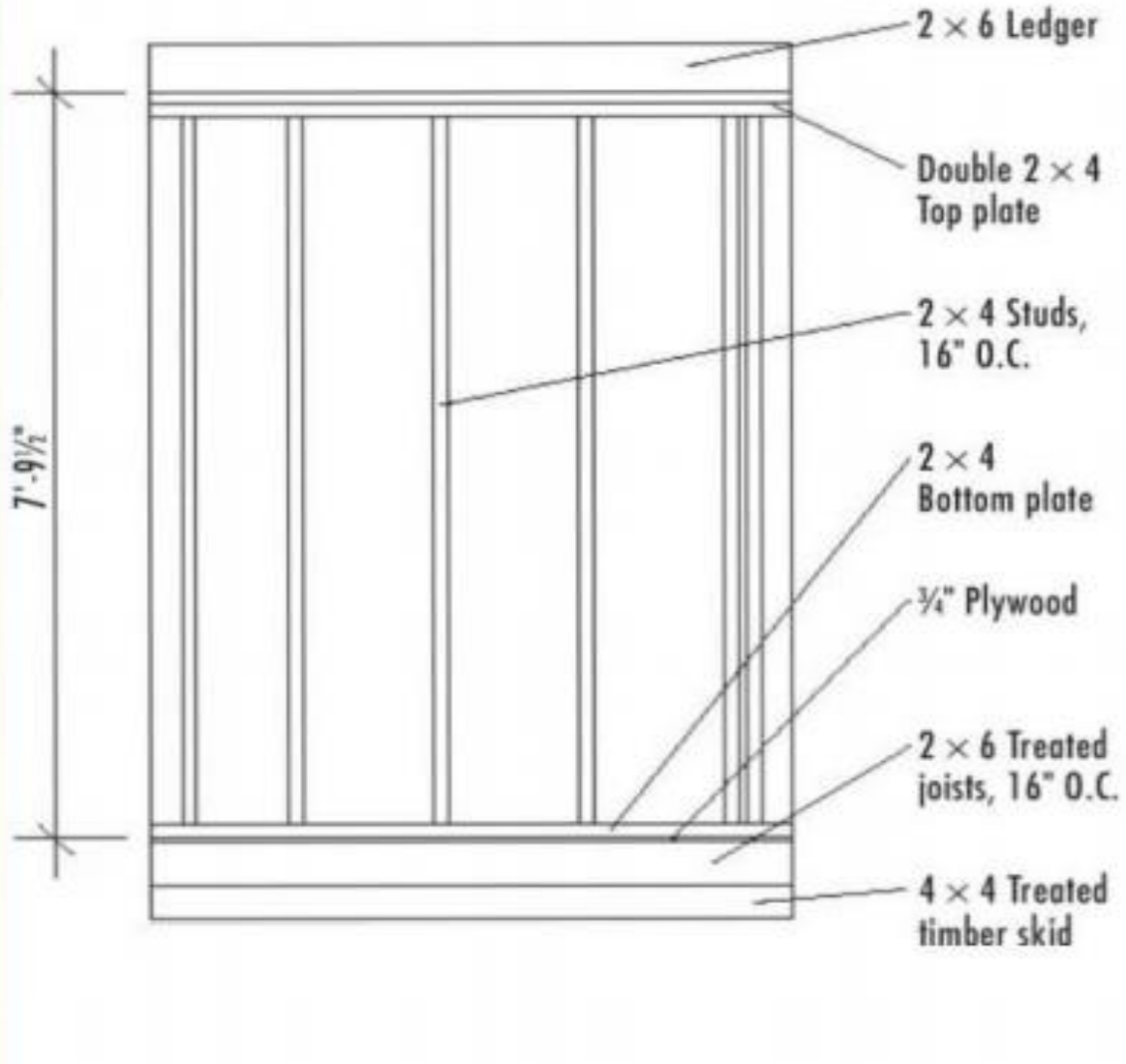
FRONT FRAMING ELEVATION



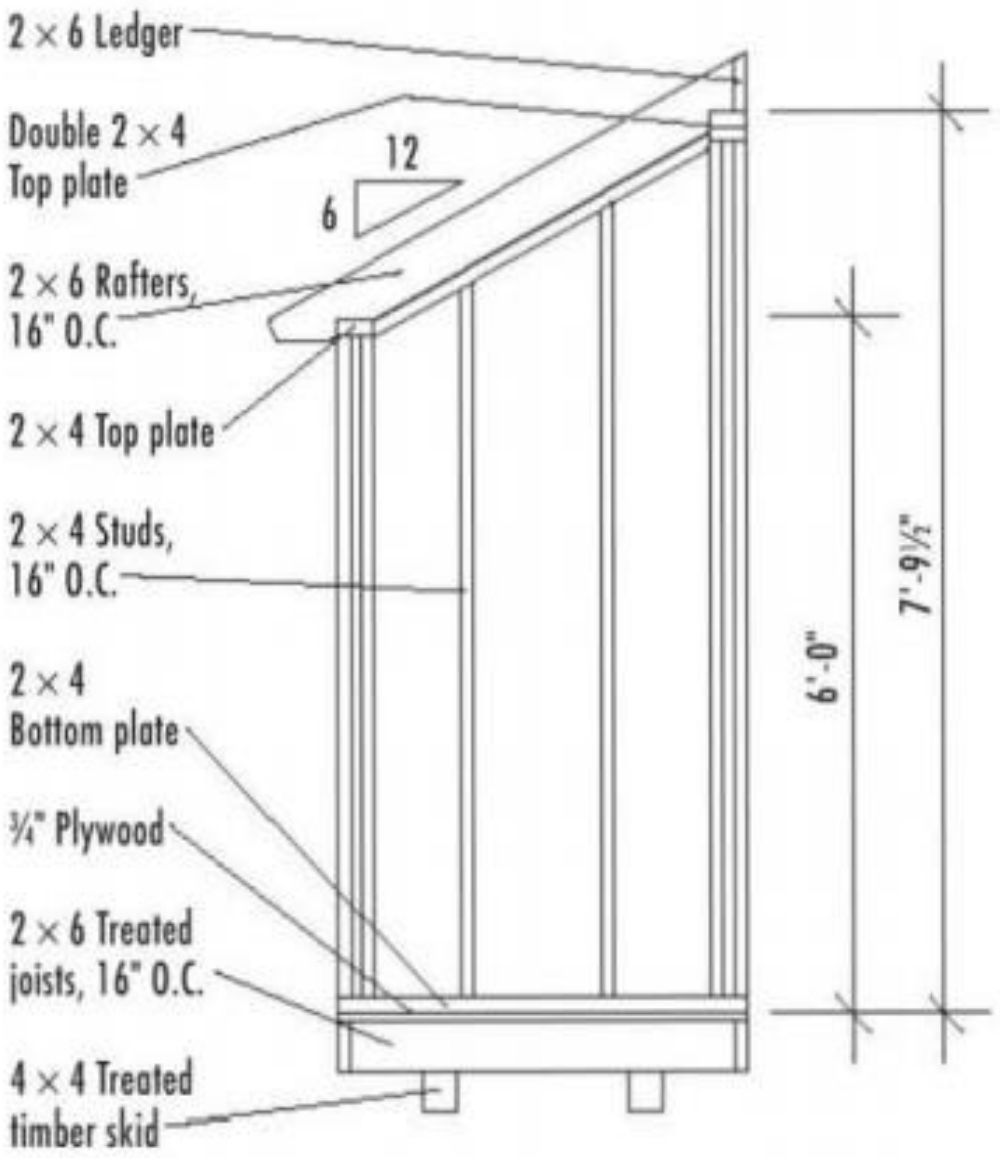
LEFT FRAMING ELEVATION



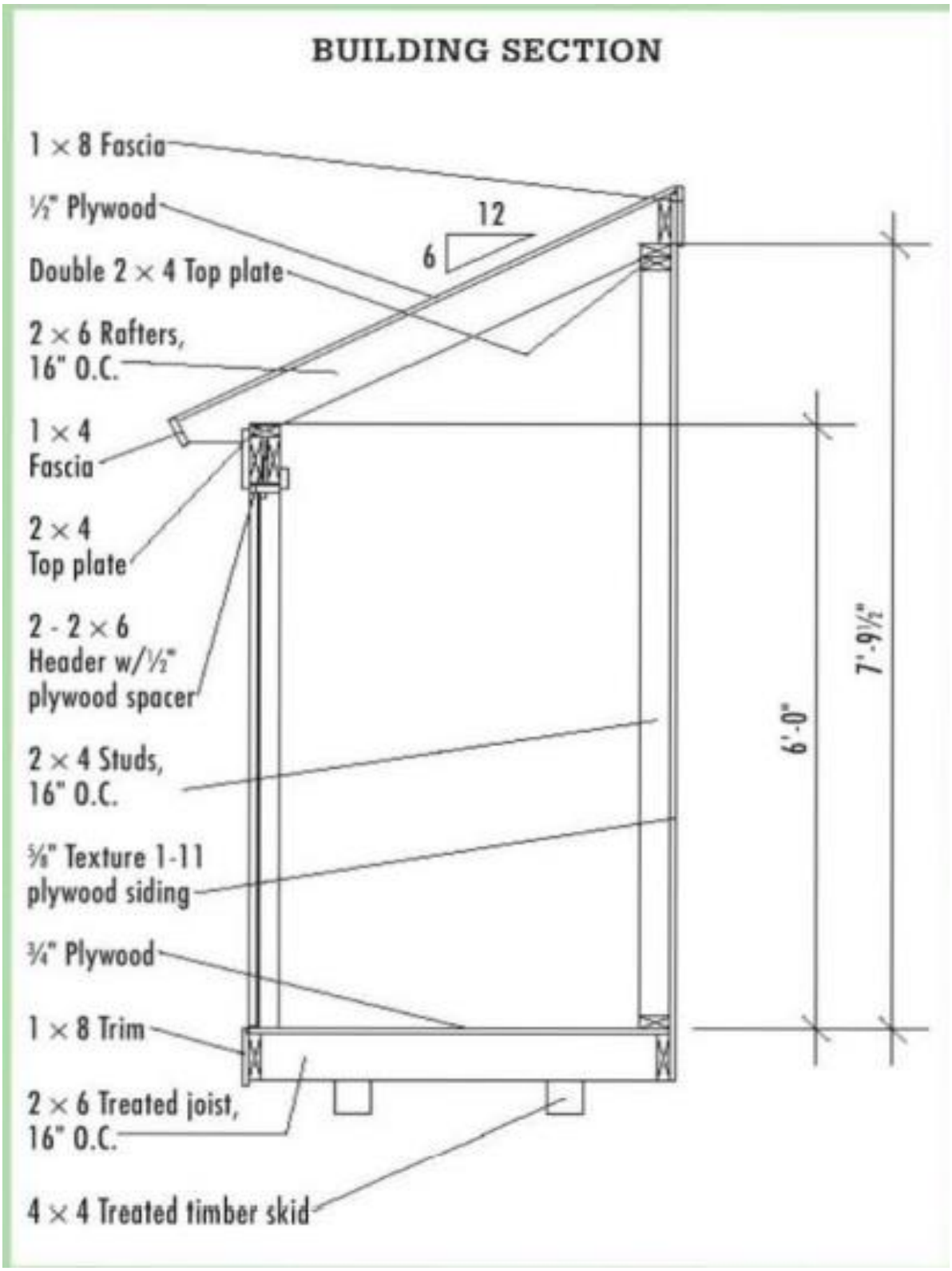
REAR SIDE FRAMING ELEVATION



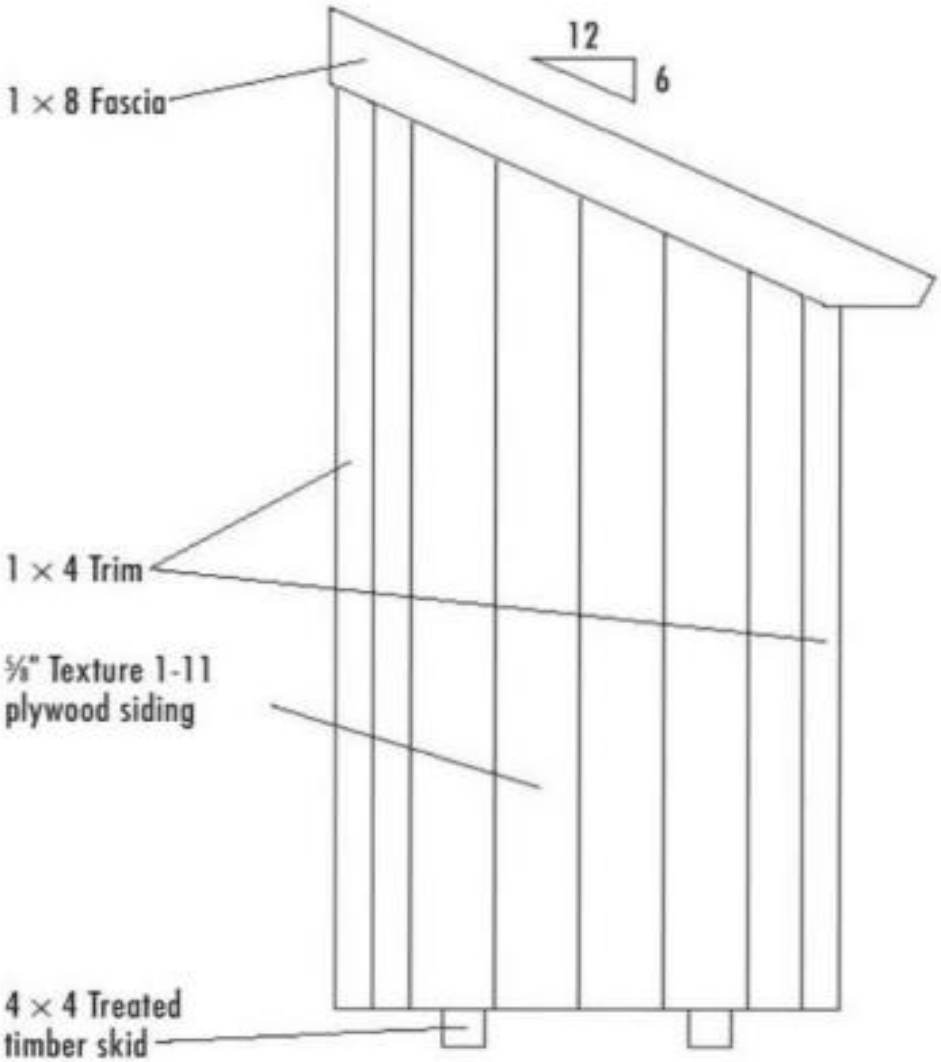
RIGHT SIDE FRAMING ELEVATION



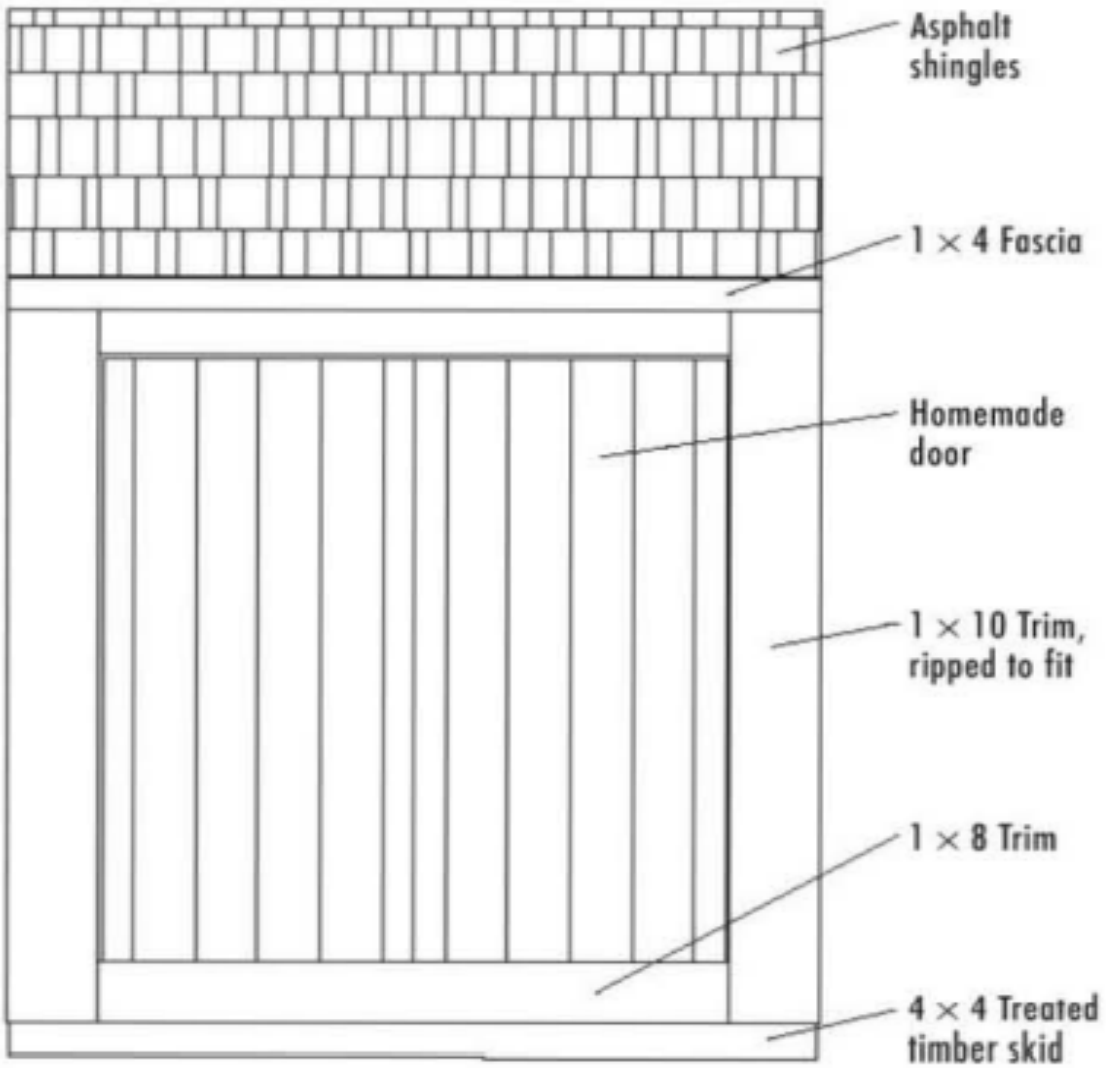
BUILDING SECTION



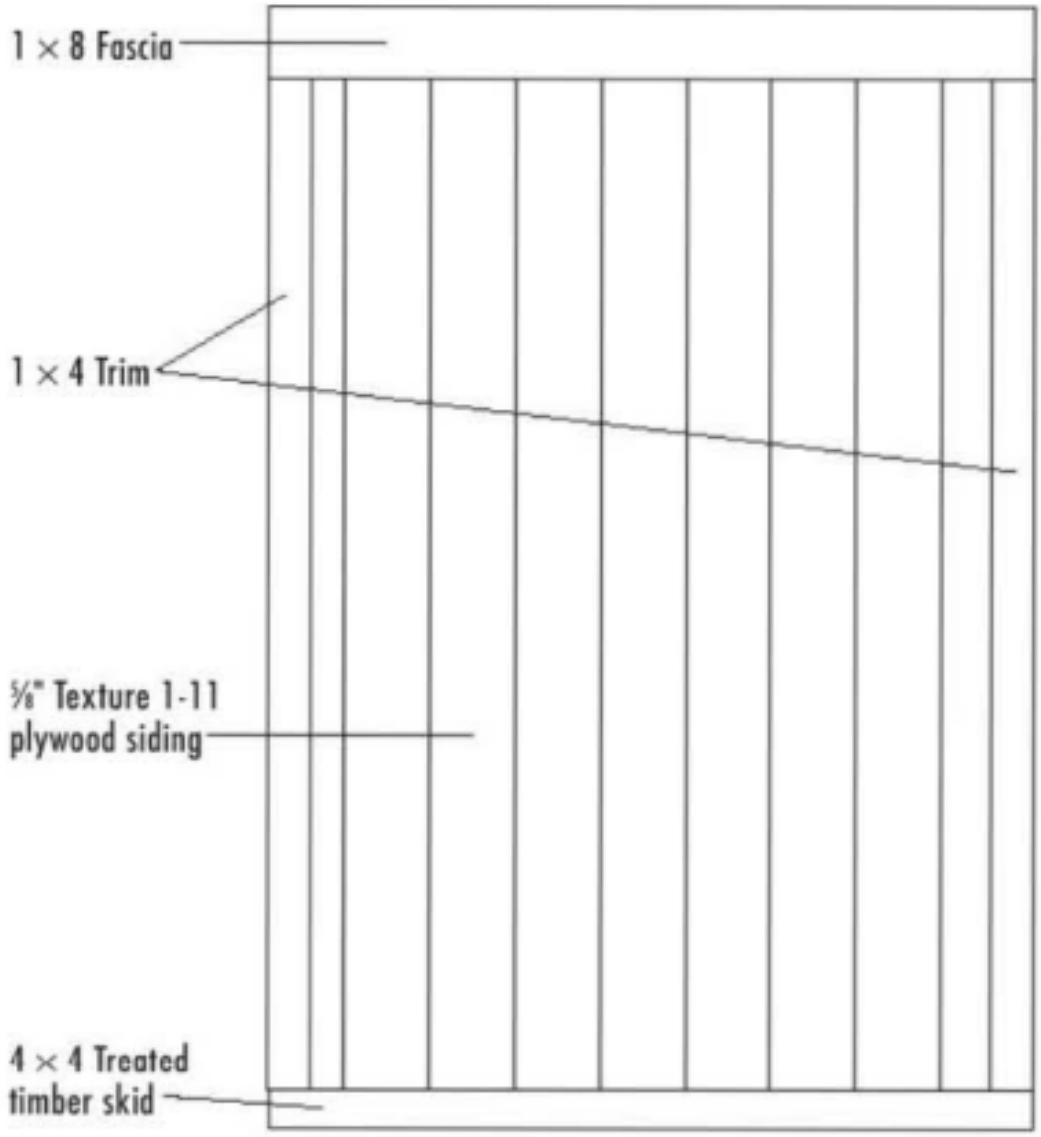
SIDE ELEVATION



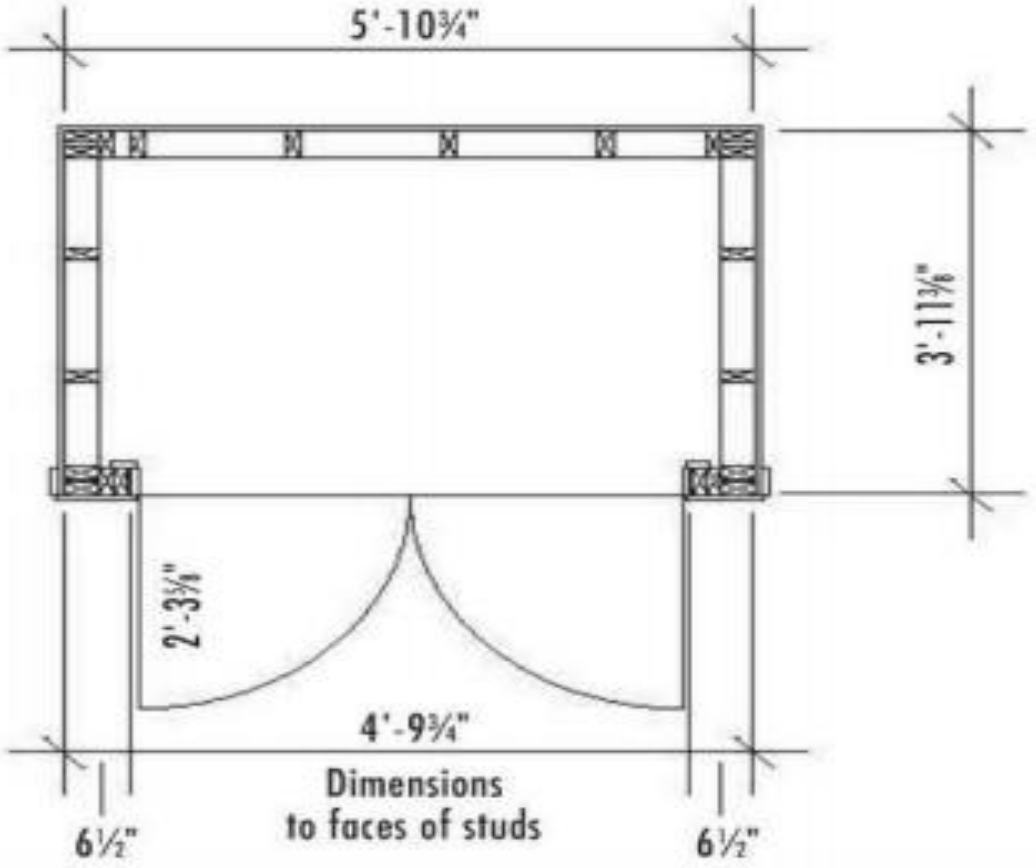
FRONT ELEVATION



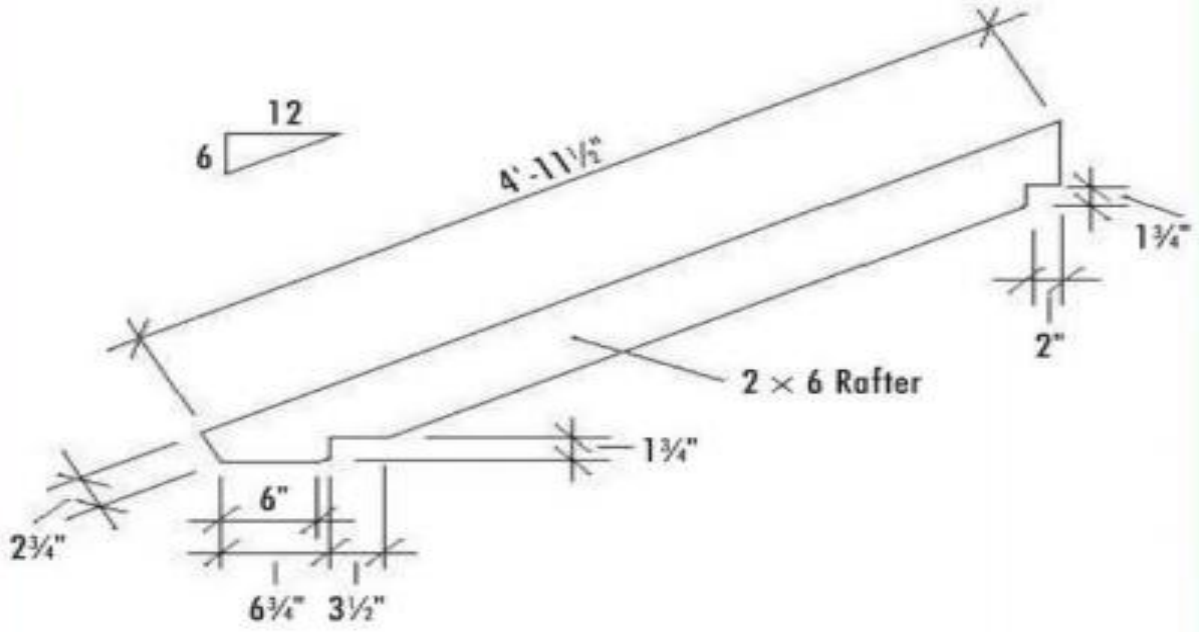
REAR ELEVATION



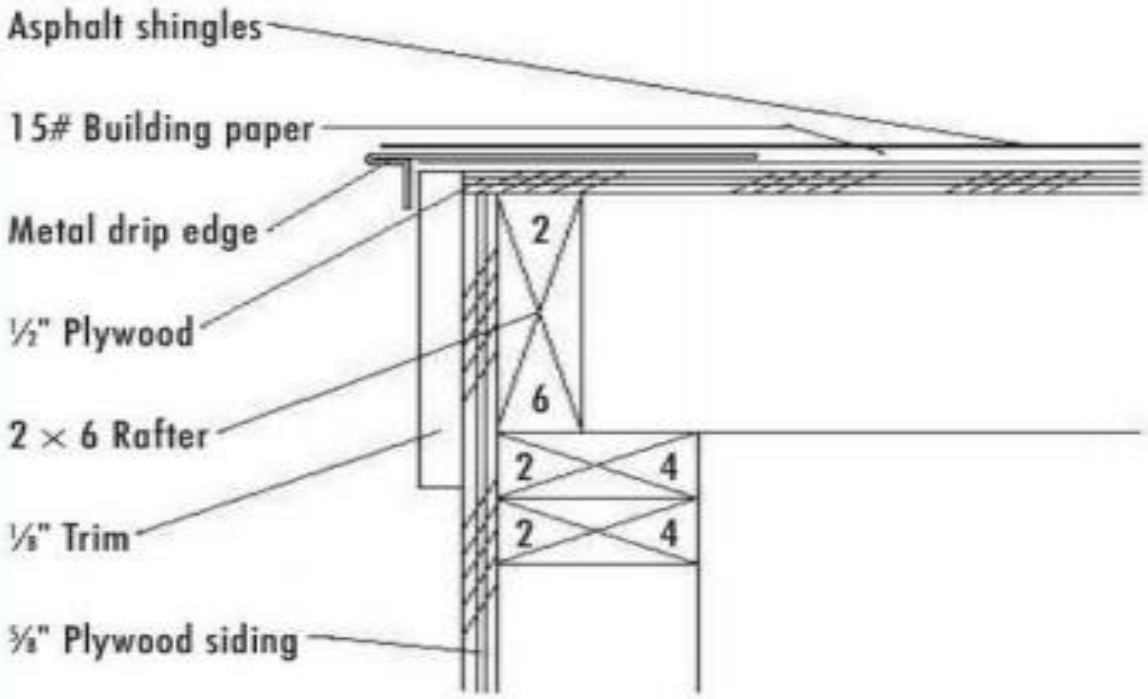
WALL PLAN



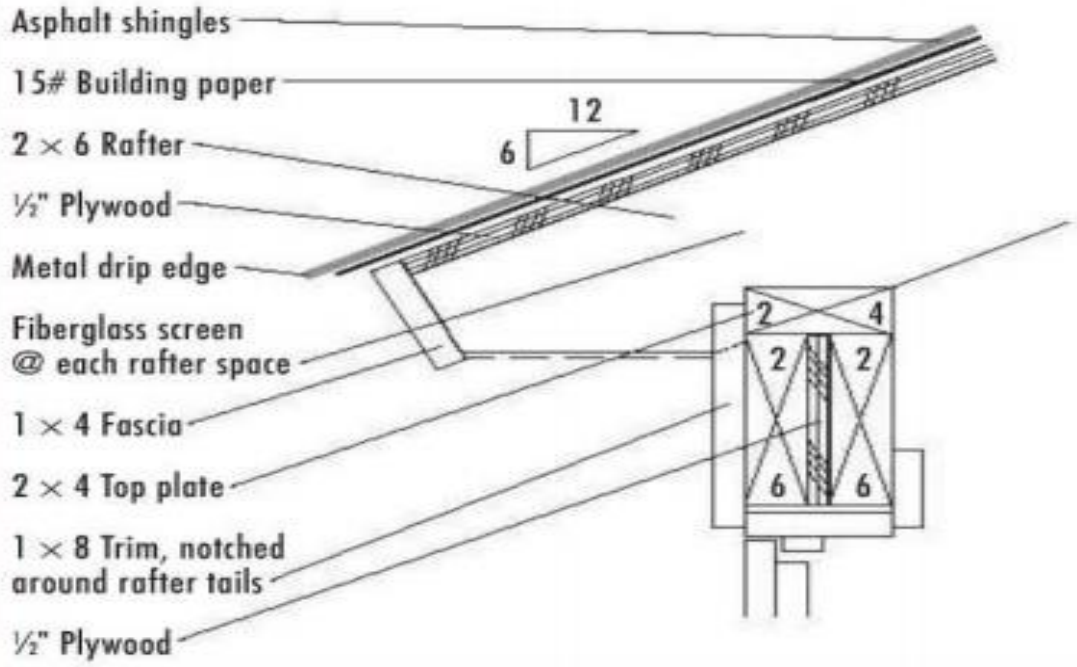
RAFTER TEMPLATE



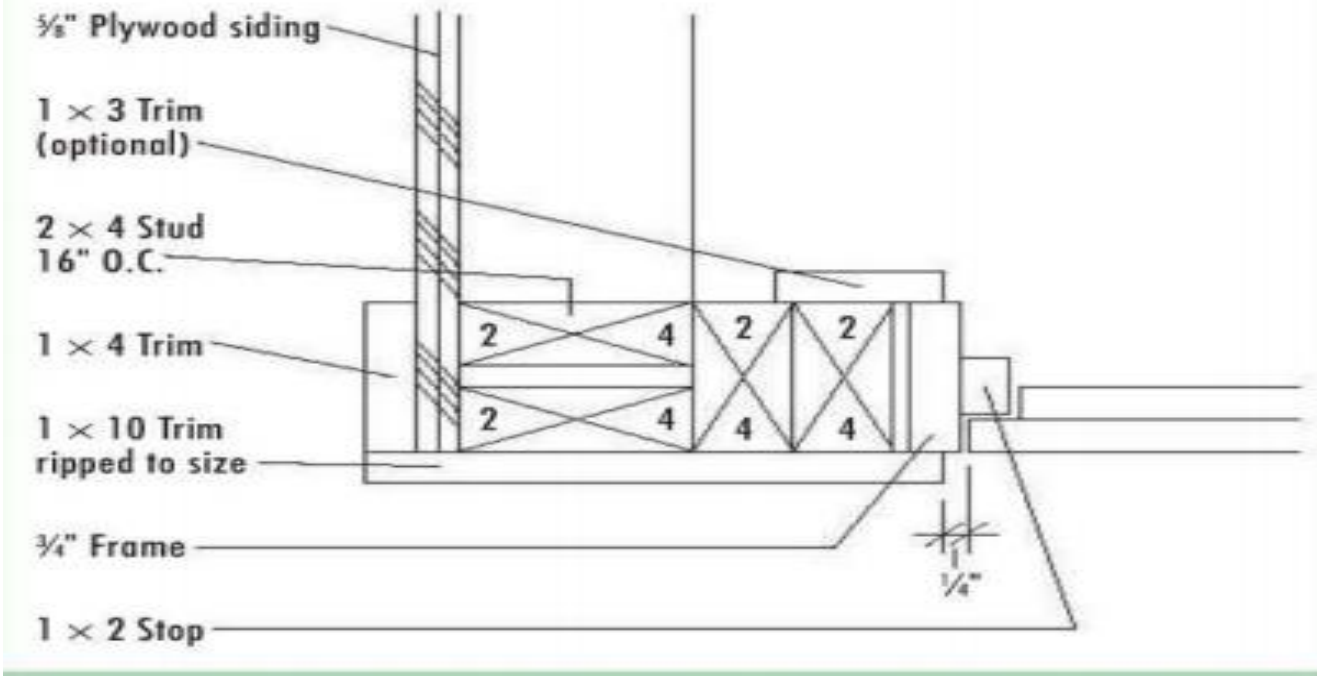
SIDE ROOF EDGE DETAIL



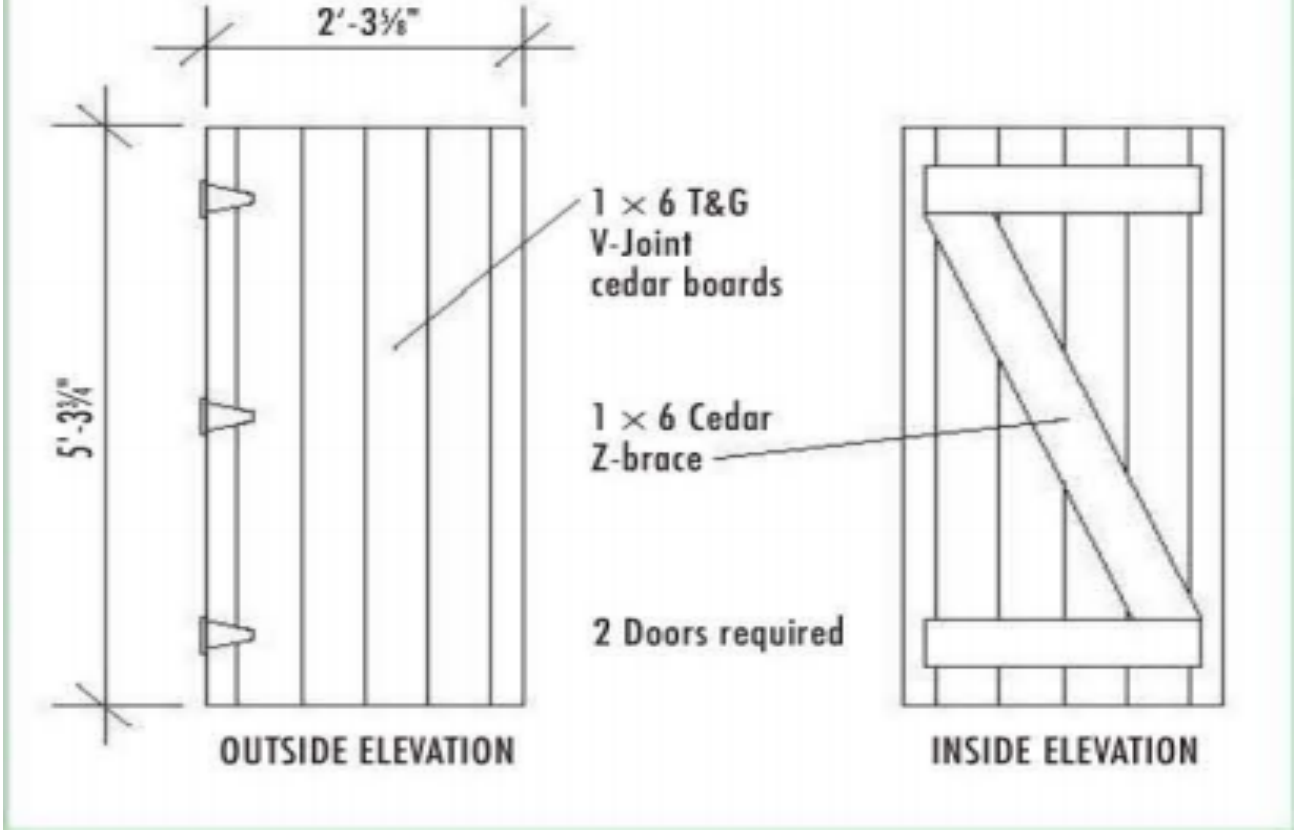
OVERHANG DETAIL



DOOR JAMB DETAIL



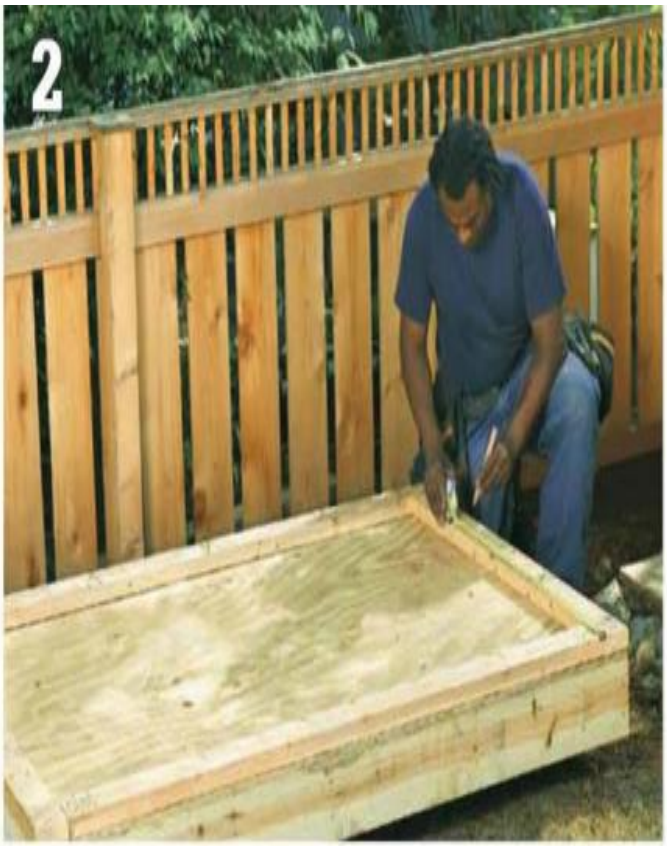
DOOR ELEVATION



Fasten the four end studs of each side wall to the bottom plate. Install these assemblies. Construct the built-up 2 × 6 door header at 63¾". Frame and install the front and rear walls, leaving the top plates off at this time. Nail together the corner studs, making sure they are plumb. Install the rear top plates flush to the outsides of the side wall studs. Install the front top plate in the same fashion.

Cut the six 2 × 6 rafters following the RAFTER TEMPLATE (page 120). Cut the 2 × 6 ledger at 70¾" and bevel the top edge at 26.5° so the overall width is 4⅝". Mark the rafter layout onto the wall plates and ledger, as shown in the ROOF FRAMING PLAN (page 117), then install the ledger flush with the back side of the rear wall. Install the rafters.

Prepare the site with a 4" layer of compacted gravel. Cut the two 4 × 4 skids at 70¾". Set and level the skids following FLOOR FRAMING PLAN (page 117). Cut two 2 × 6 rim joists at 70¾" and six joists at 44⅜". Assemble the floor and set it on the skids as shown in the FLOOR FRAMING PLAN. Check for square, and then anchor the frame to the skids with four joist clip angles (inset photo). Sheath the floor frame with ¾" plywood.



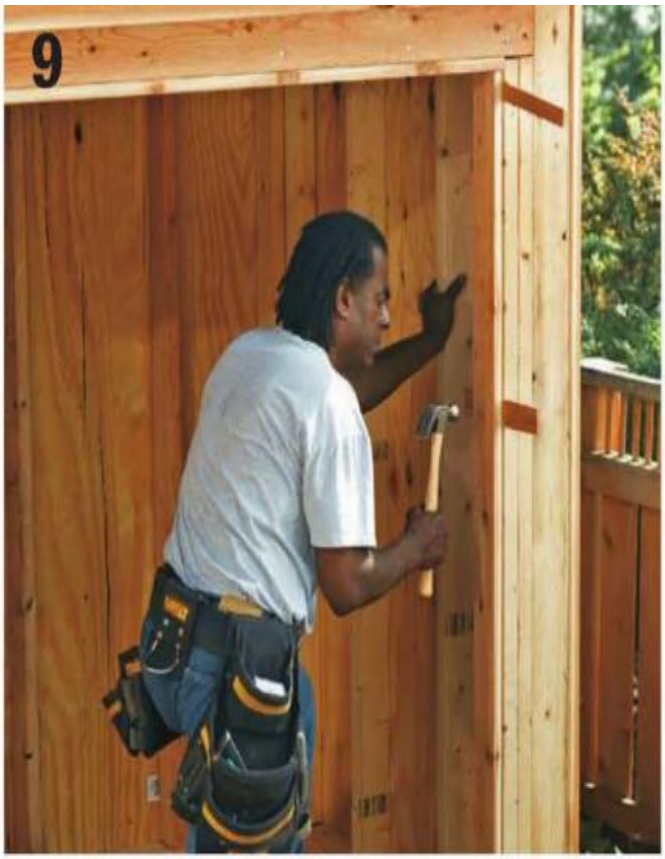
Cut plates and studs for the walls: Side walls—two bottom plates at 47⅜", four studs at 89", and four studs at 69"; Front wall—one bottom plate at 63¾", one top plate at 70¾", and four jacks studs at 63½". Rear wall—one bottom plate at 63¾", two top plates at 70¾", and six studs at 89". Mark the stud layouts onto the plates.

Complete the side wall framing: Cut a top plate for each side to fit between the front and rear walls, mitering the ends at 26.5°. Install the plates flush with the outsides of the end rafters. Mark the stud layouts onto the side wall bottom plates, then use a plumb bob to transfer the marks to the top plate. Cut the two studs in each wall to fit, mitering the top ends at 26.5°. Install the studs.

Sheath the side walls and rear walls with plywood siding, keeping the bottom edges ½" below the floor frame and the top edges flush with the tops of the rafters. Overlap the siding at the rear corners, and stop it flush with the face of the front wall.

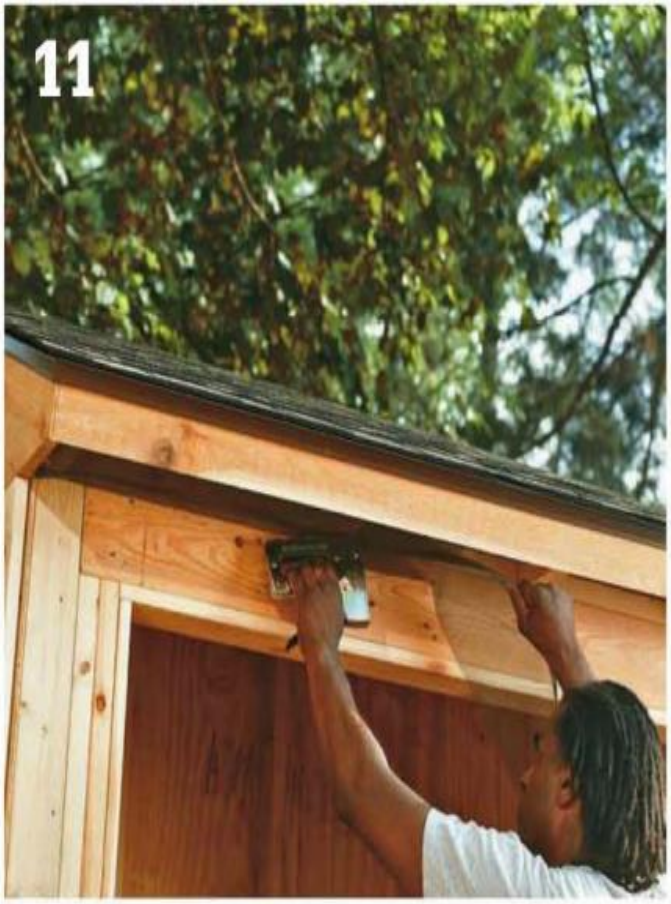
Add the 1 × 4 fascia over the bottom rafter ends as shown in the OVERHANG DETAIL (page 120). Install 1 × 8 fascia over the top rafter ends. Overhang the front and rear fascia to cover the ends of the side fascia, or plan to miter all fascia joints. Cut the 1 × 8 side fascia to length, and then clip the bottom front corners to meet the front fascia. Install the side fascia.

Install the ½" roof sheathing, starting with a full-width sheet at the bottom edge of the roof. Fasten metal drip edge along the front edge of the roof. Cover the roof with building paper, then add the drip edge along the sides and top of the roof. Shingle the roof, and finish the top edge with cut shingles or a solid starter strip.

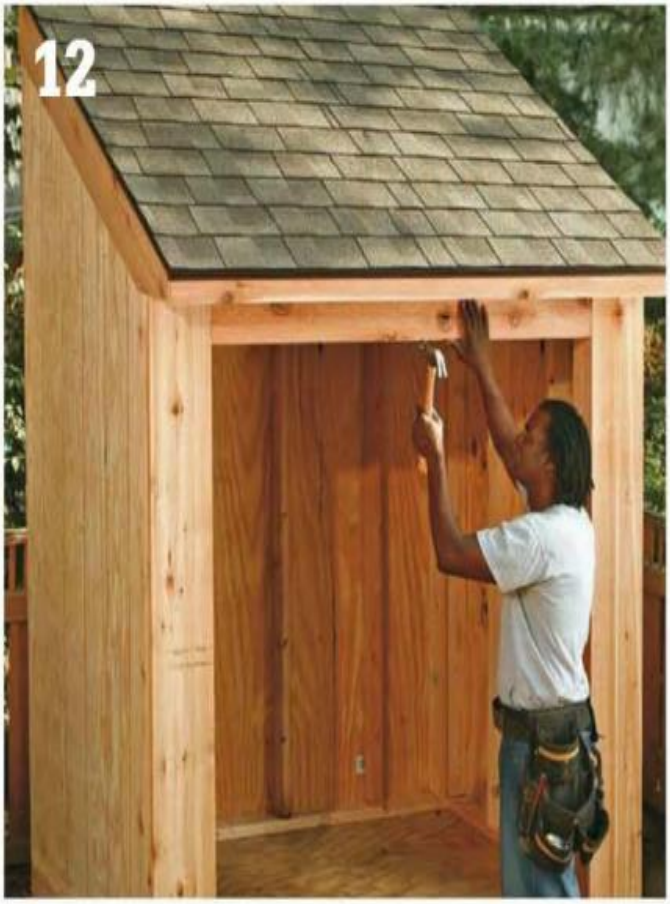


Cut and remove the bottom plate inside the door opening. Cut the 1 × 4 head jamb for the door frame at 57⅛" and cut the side jambs at 64". Fasten the head jamb over the sides with 2½" deck screws. Install 1 × 2 door stops ¾" from the front edges of jambs, as shown in the DOOR JAMB DETAIL (page 120). Install the frame in the door opening, using shims and 10d casing nails.

For each door, cut six 1 × 6 tongue-and-groove boards at 63¾". Fit them together, then mark and trim the two end boards so the total width is 27⅝". Cut the 1 × 6 Z-brace boards following the DOOR ELEVATION (page 120). The ends of the horizontal braces should be 1" from the door edges. Attach the braces with construction adhesive and 1¼" screws. Install each door with three hinges.



Staple fiberglass insect mesh along the underside of the roof from each side 2 × 6 rafter. Cut and install the 1 × 8 trim above the door, overlapping the side door jambs about ¼" on each side (see the OVERHANG DETAIL, page 120).



Rip vertical and horizontal trim boards to width, then notch them to fit around the rafters, as shown in the DOOR JAMB DETAIL (page 120). Notch the top ends of the 1 × 10s to fit between the rafters and install them. Add 1 × 8 trim horizontally between the 1 × 10s below the door. Install the 1 × 4 corner trim, overlapping the pieces at the rear corners.