SUCCAH CONSTRUCTION INSTRUCTIONS

Designed by Gary Garb

INSTRUCTIONS - Part One:

The construction of the Succah includes the first-time assembly, so you might want to do the construction in the actual location you want the finished Succah to stand. Otherwise, you will need to disassemble and reassemble in the final location.

The Succah may be used as is, stained with a good weather-resistant stain (redwood is nice), or painted. If you paint, be sure to save the identifying marks on the parts (see below)!

Cut 4' x 8' plywood sheet lengthwise into 3 pieces 16" wide, as shown in **Figure 1**.

Cut 12" end off two of the pieces and save. This leaves one 8' x 16" piece which is the Back Panel and two 7' x 16" pieces which are the Side Panels.

Mark ends of Back Panel as "left" and "right".

Mark the Side Panels as "left" and "right" and the ends of each Side Panel as "front" and "back".

Cut and mark 2" x 4" studs as shown in **Figure 2**. Use carpenter's square to assure accurate cuts. Be sure to save two of the 16" end scraps from the corner post for Rear Panel Braces.

Mark ends of Front and Rear Cross-members as "left" and "right".

Mark ends of Side Cross-members as "front" and "back".

✡ NOTE: It is important to mark, unobtrusively, all the components because once the holes are drilled for the assembly bolts, they will NOT be alike.

From the 12" x 16" plywood scrap ends from the Side Panels, cut Cross-member Brackets as shown in **Figure 3**, **Figure 4**, **Figure 5**, and **Figure 6**.

These pieces do not have to be cut precisely, but should be nominal as shown.

Drill 1/4" holes in the plywood Cross-member Brackets as shown in **Figure 3** and **Figure 5**.
Drill 1/8" pilot holes for the wood screws in the Cross-member Brackets as shown in **Figure 3** and **Figure 5**.

Drill 1/4" holes in the Front and Side Panels as shown in **Figure 7**.

Attach the plywood Cross-member Brackets to the Corner Posts using the wood screws, as shown in **Figure 8** and **Figure 9**.

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INSTRUCTIONS - Part Two:

There will be one Type A and one Type B Cross-member Bracket at the top of each Corner Post (as in **Figure 8**). There will be one Type B Cross-member Bracket at the bottom of each Front Corner Post to attach the Bottom Front Cross-member (as in **Figure 9**).

Be sure that the wide (Type A) Cross-member Brackets are mounted on the wide side of the Corner Posts.

✡ NOTE: the cross-members and panels shown in the figures are NOT assembled to the corner posts at this time.

Nail Galvanized Corner Brackets to the insides of the Corner Posts 3 1/2" from the top as shown in **Figure 10**.

These will aid in assembling the Succah by supporting the Cross-members while bolting them to the Cross-member Brackets.

Nail the 16" Back Panel Braces to the Rear Corner Posts using 3" common nails as shown in **Figure 11** and **Figure 12**. Drill 1/8" pilots holes before nailing to prevent Corner Posts from splitting.

The bottom end of the Brace should be 1" above the bottom of the Corner Post. The Brace should be mounted perpendicular to, and flush with, the back edge of the Corner Post.

Line up the left end of the Back Panel with the Back Panel Brace on the Left Rear Corner Post. Using the Back Panel as a template, drill through the holes in the Back Panel to make corresponding holes in the Back Panel Brace as shown in **Figure 11** and **Figure 12**.

Repeat with the right end of the Back Panel and the Right Rear Corner Post.

Line up the rear end of the Right Side Panel with the Right Rear Corner Post, level with and perpendicular to the Back Panel Brace. Using the Side Panel as a template, drill through the holes in the Right Side Panel to make corresponding holes in the Corner Post as shown in **Figure 11** and **Figure 12**.

Repeat with the rear end of the Left Side Panel and the Left Rear Corner Post.

Line up the front end of the Left Side Panel against the wide side of the Left Front Corner Post. Be sure the bottom edge of the Side Panel is 1" from the bottom of the Corner Post. Using the Side Panel as a template, drill through the holes in the Side Panel to make corresponding holes in the Corner Post.

Repeat with the front end of the Right Side Panel and the Right Front Corner Post.

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INSTRUCTIONS - Part Three:

Assemble the Panels to the Corner Posts using the 1/4" bolts, washers, and nuts.

✡ NOTE: Insert a washer on each side of the wood!

You now have two sides and the back of the Succah standing.

Using the Cross-member Brackets as templates, drill through the holes in the Brackets to make corresponding holes in the Cross-members.

✡ NOTE: It is important to ensure that the Cross-members are perfectly square with the Corner Posts when making the holes. Here is a suggestion to help in this process: Let the Cross-member rest on the Galvanized Corner Brackets between the Corner Posts. Be sure the correct Cross-member and its end match the Corner Post as marked (i.e.: "right" end of the Rear Cross-member is aligned to the Right Rear Corner Post). Use a clamp to hold one end of the Cross-member to the Bracket while you drill the other end. Once the holes are mode, insert bolts and washers and hand-tighten the nuts. Then, after removing the clamp, drill the holes in the other end of the Cross-member and bolt to the Bracket. Continue around until all four Cross-members are in place.

Likewise, drill and assemble the Bottom Front Cross-member.

Using a screwdriver and wrench, firmly tighten all nuts.

Lay the 1" x 2" lath boards on edge on the Front and Rear Top Cross-members, perpendicular to them and about a foot apart. Tie them firmly to the Cross-members to form the roof, as shown in **Figure 13**.

✡ A more elegant, but complex, approach is to make notches on the tops of the Front and Rear Cross-members and in the bottoms of the 1" x 2" roof boards, thereby allowing the 1" x 2"s to be interlocked with the Cross-members. (See **Figure 15**)

Your Succah framework is now complete, as shown in **Figure 14**!!!

Finally, staple quality burlap to the sides and back for a beautiful, rustic, wilderness look. Place bush and tree trimmings on the roof to complete. Inside is plenty of room for a standard picnic table and benches or chairs.

Problems? Send me an E-Mail: neshvaltw@aol.com

Chag Sameach!

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LIST OF MATERIALS and TOOLS

SUCCAH MATERIALS LIST:

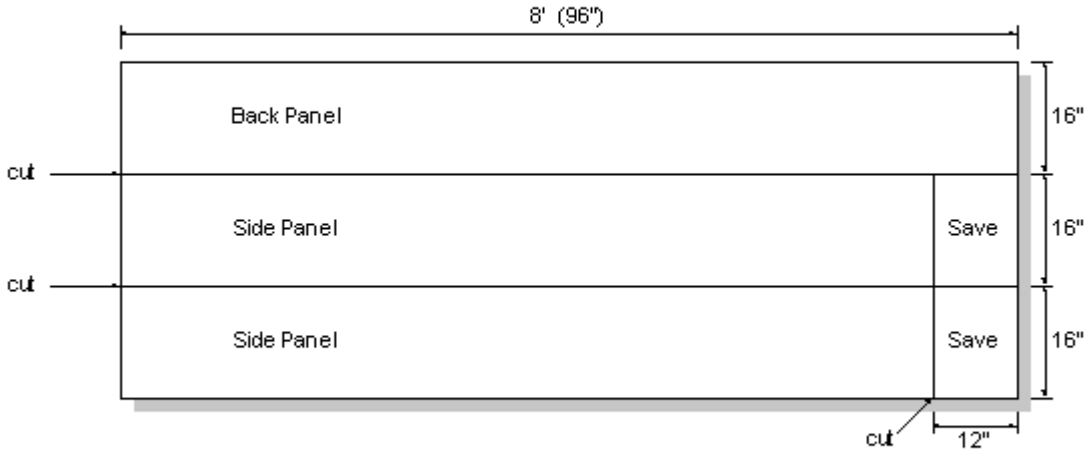
9 - 2" x 4" x 8' studs (good grade finished)
1 - 4' x 8' x 5/8" (or 3/4") plywood sheet (exterior grade, both sides sanded)
7 - 1" x 2" x 8' boards (finished lath)
32 - 1/4" x 3" machine screws
32 - 1/4" nuts or wing-nuts
64 - 1/4 washers
80 - 1 1/4" flat head wood screws (approx. count)
6 - 3" common nails
8 - 1 1/2" galvanized corner brackets
16 - 1" galvanized nails for the above corner brackets

Buy a few extra bolts, nuts, washers, and nails in case of defects, damage, loss, etc.

TOOLS REQUIRED:

Circular saw, plywood blade, and all-purpose or carbide blade
Jigsaw or scroll saw with plywood blade
Drill and 1/4" and 1/8" bits
Hammer
Medium-size screw driver
Ruler
Carpenter's square
Box or open end wrenches to fit 1/4" nuts (for assembly, if wing nuts not used)

Figure 1

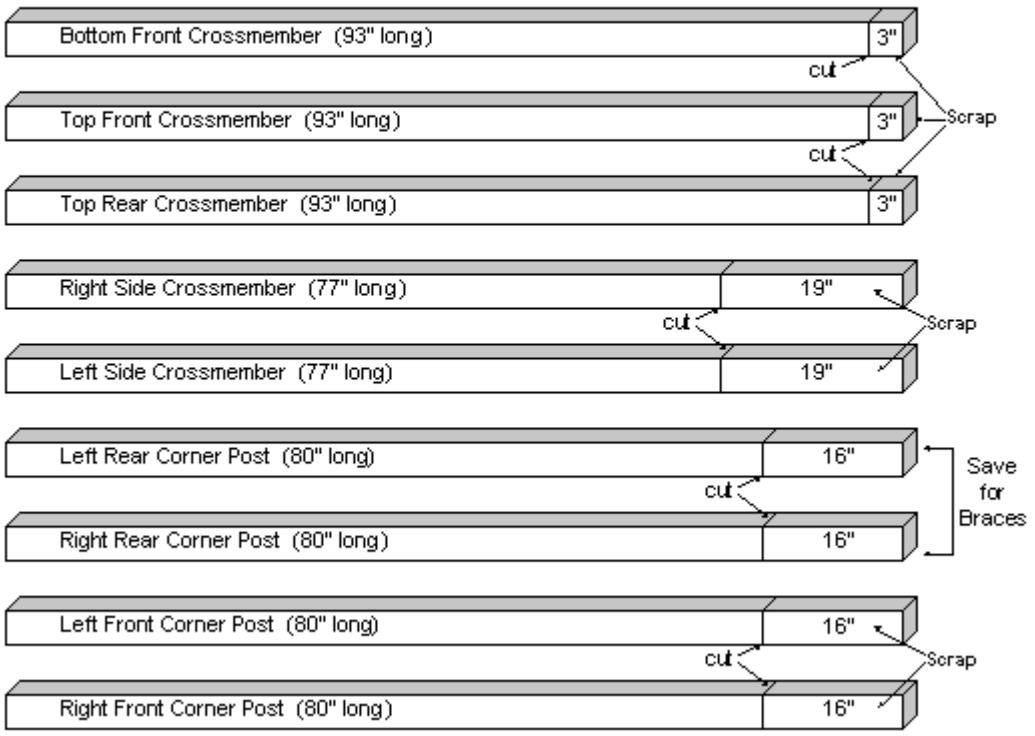


Layout of panels on 4' x 8' plywood sheet

Use scrap ends to make crossmember brackets

Figure 2

2" x 4" x 8' Studs, Cut as shown and mark



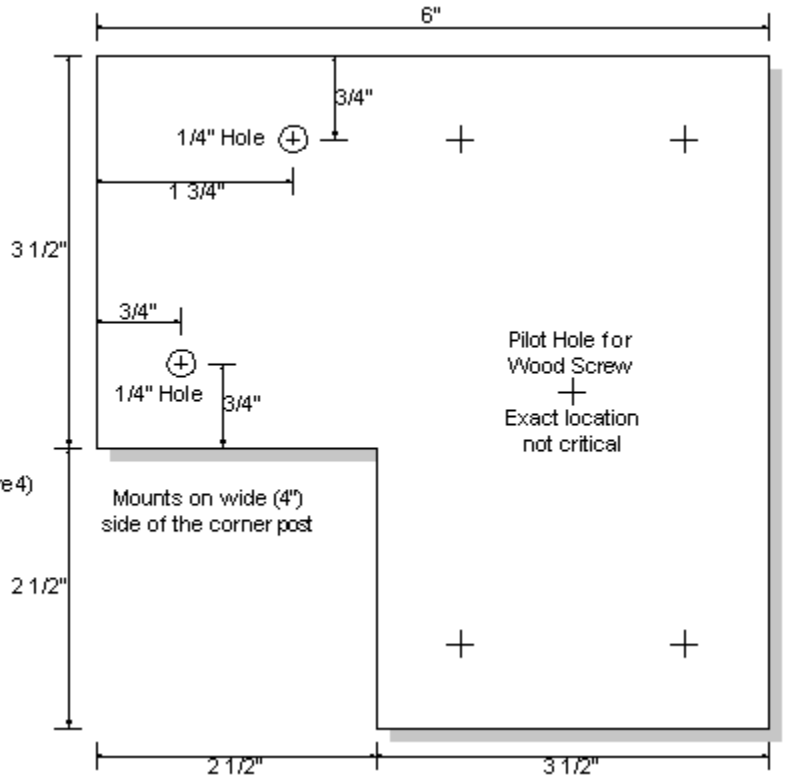


Figure 3

Layout for Type A Crossmember
Mounting Bracket
4 Required
Cut from plywood scrap (see Figure 4)

Figure 4

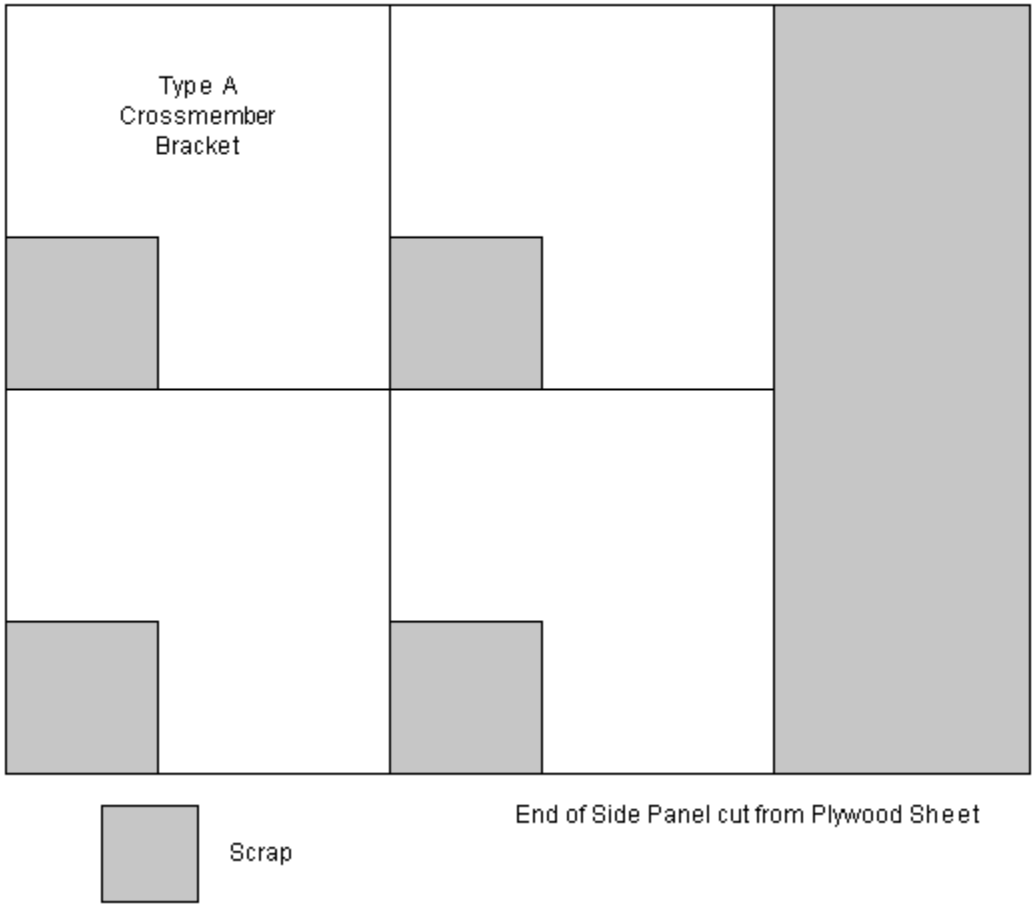

Type A
Crossmember
Bracket
End of Side Panel cut from Plywood Sheet
Scrap

Figure 5

Layout for Type B Crossmember
Mounting Bracket
6 Required
Cut from plywood scrap (See Figure 6)

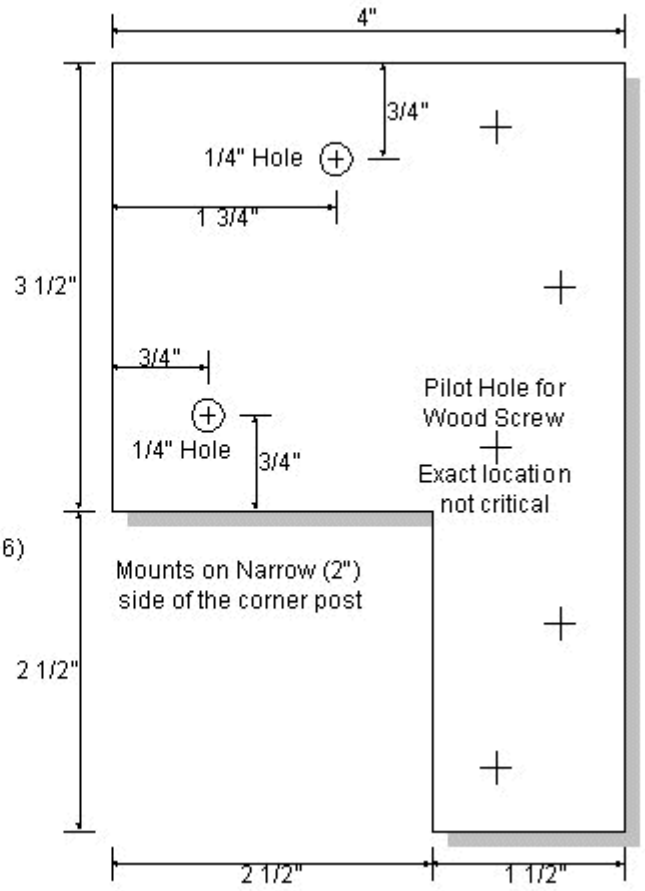


Figure 6

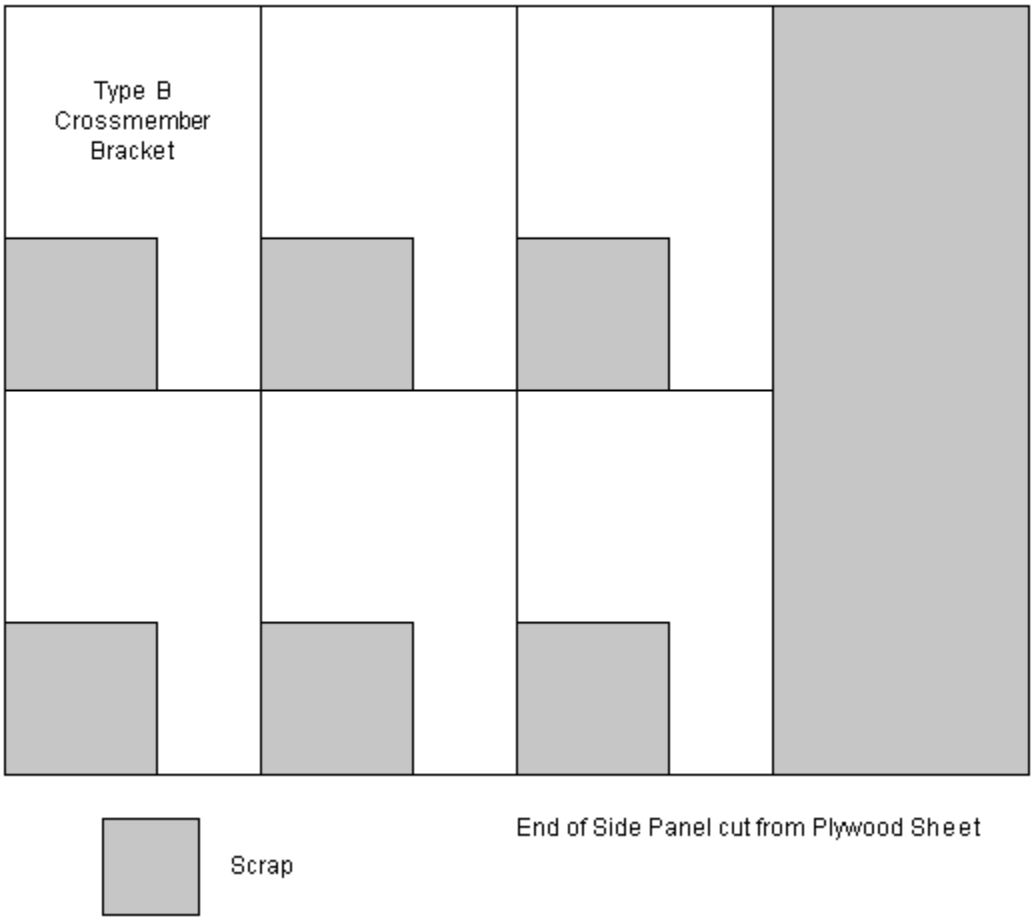
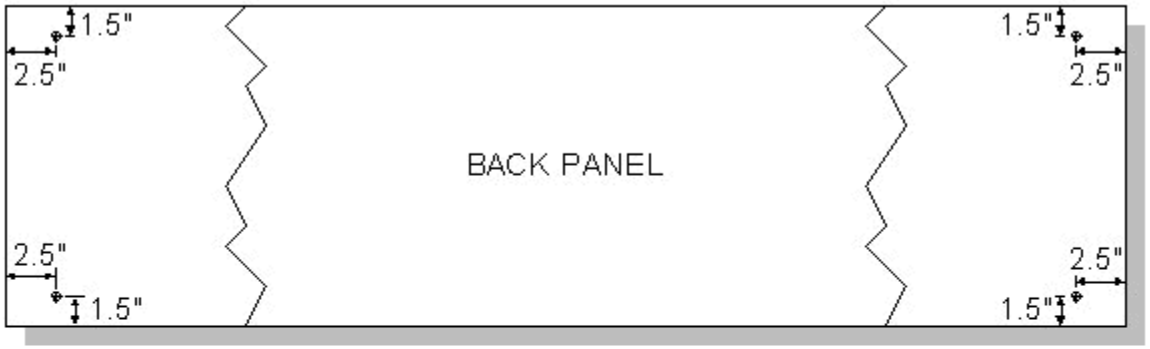
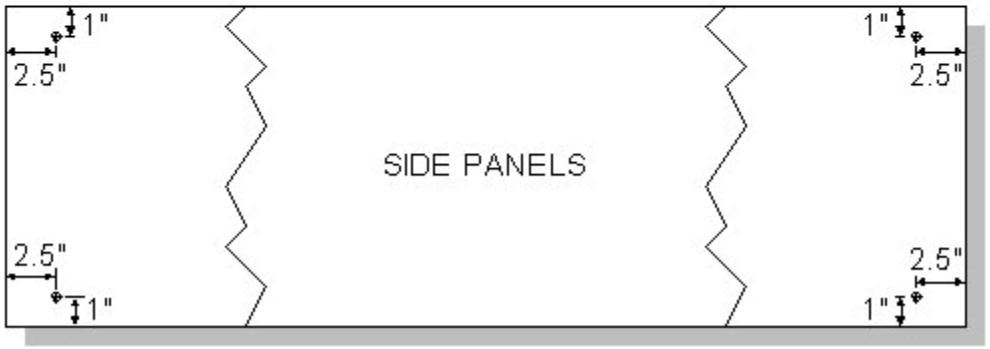

Type B
Crossmember
Bracket
End of Side Panel cut from Plywood Sheet
Scrap

Figure 7





Drill 1/4" holes in panels at locations indicated

Figure 8

Assembly of Crossmembers to Corner Post using Brackets

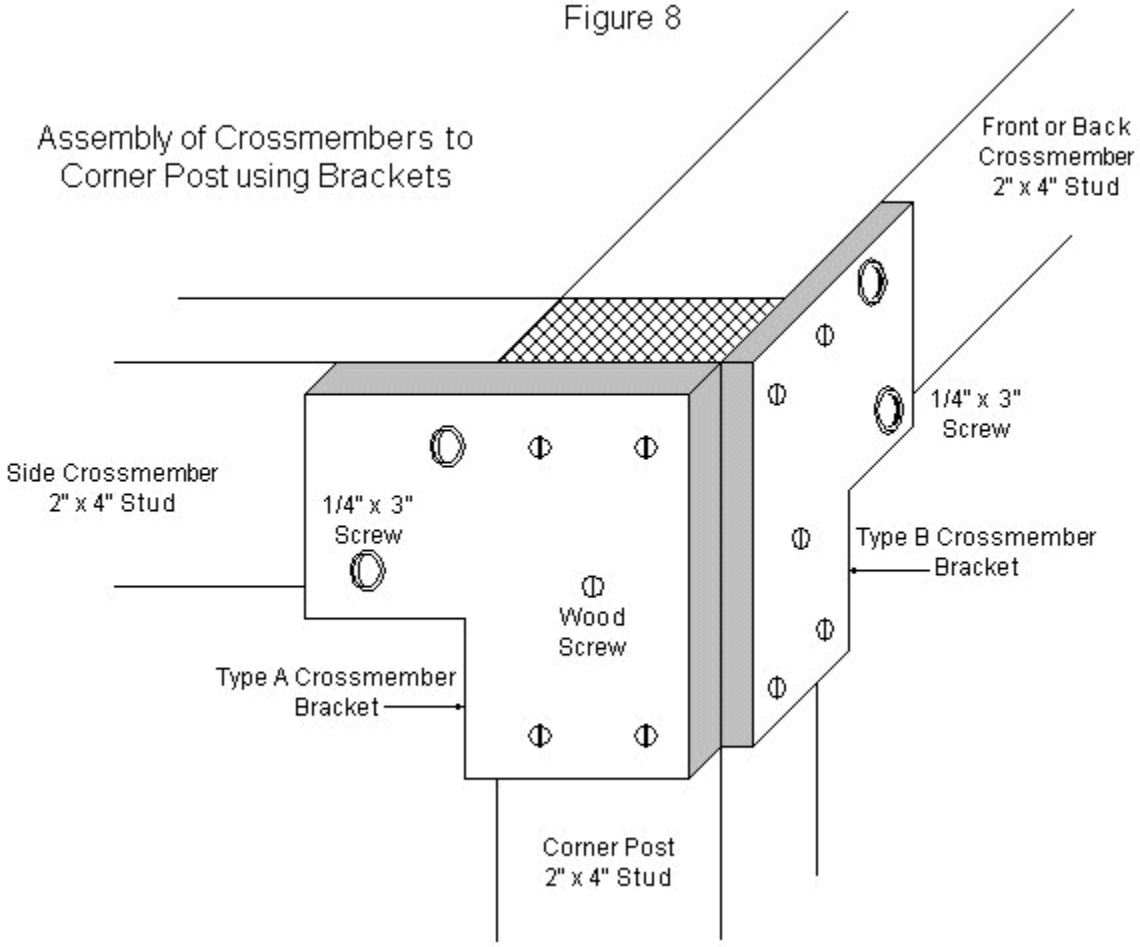
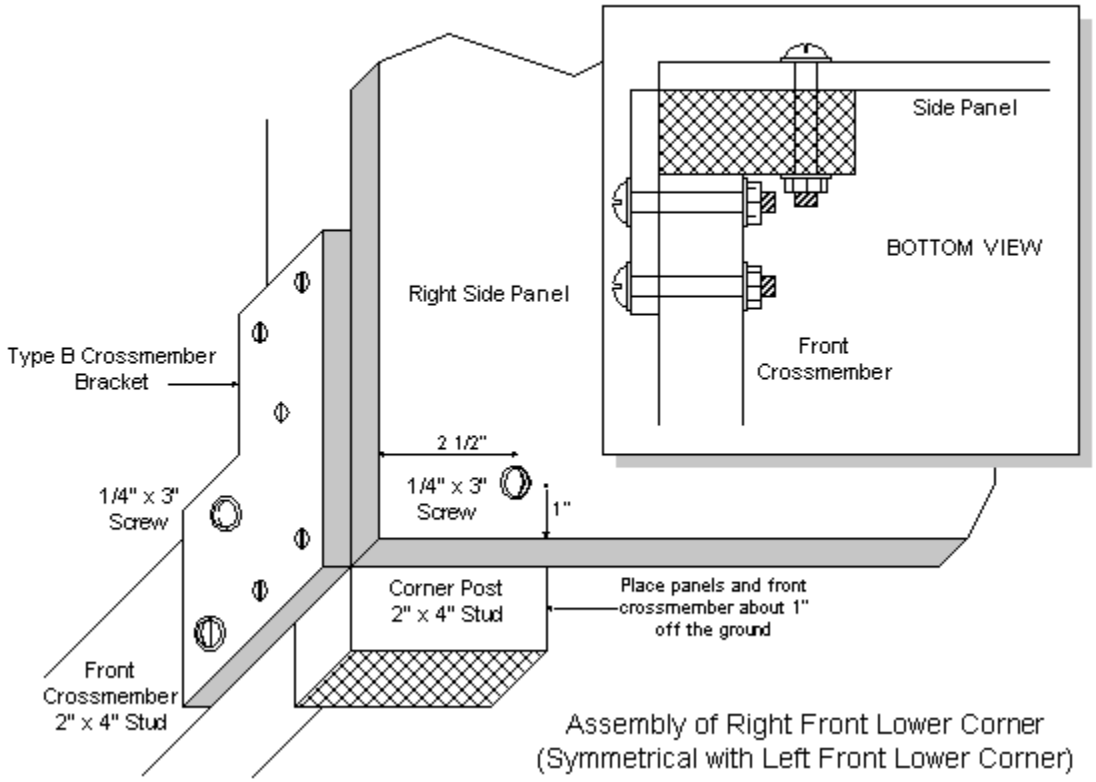


Figure 9



Assembly of Right Front Lower Corner
(Symmetrical with Left Front Lower Corner)

Figure 10

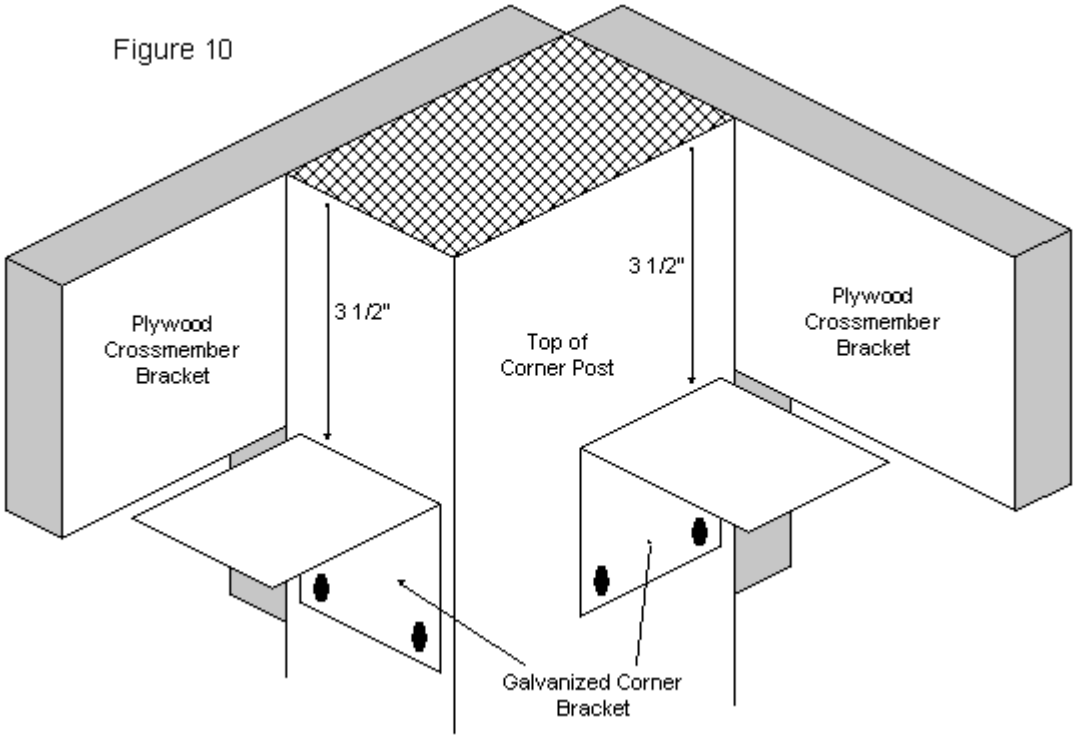
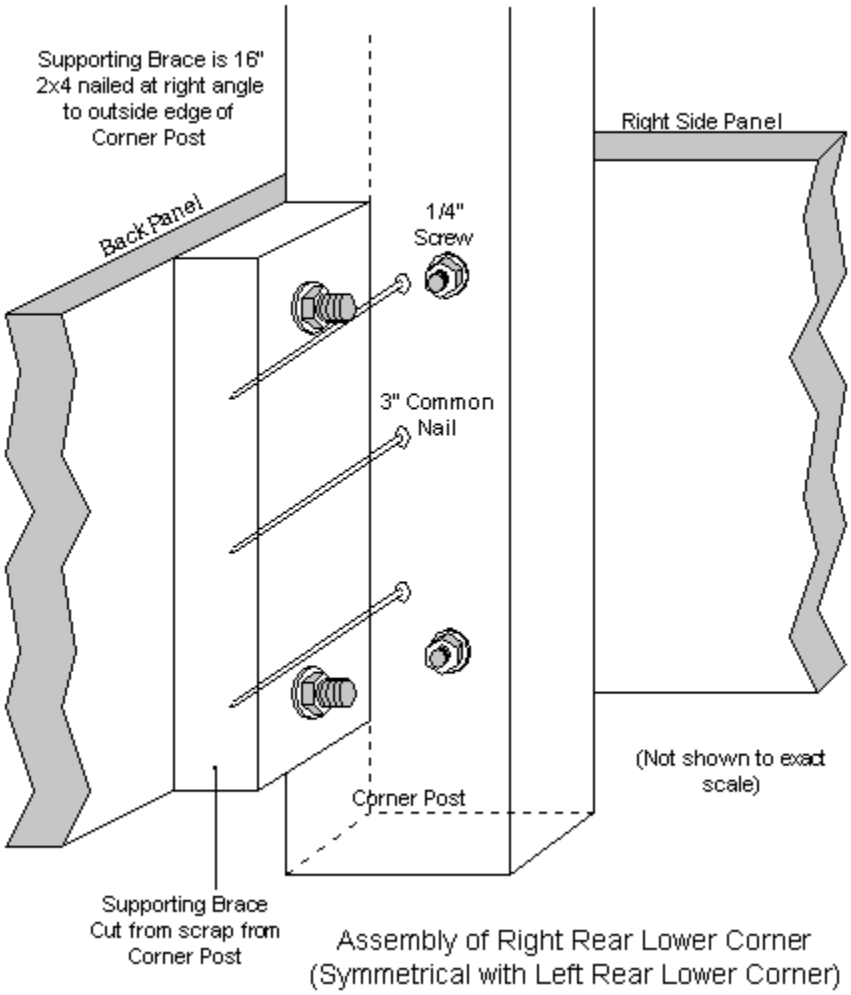
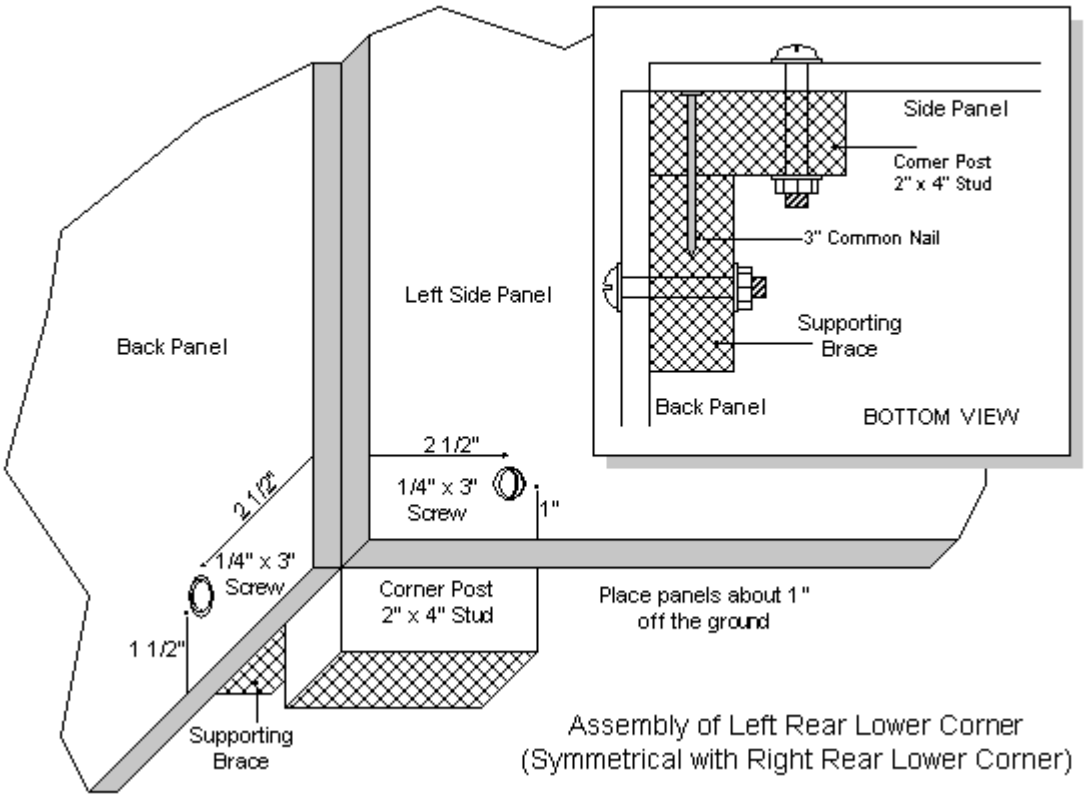


Figure 11



Assembly of Right Rear Lower Corner
(Symmetrical with Left Rear Lower Corner)

Figure 12



Assembly of Left Rear Lower Corner
(Symmetrical with Right Rear Lower Corner)

Figure 13

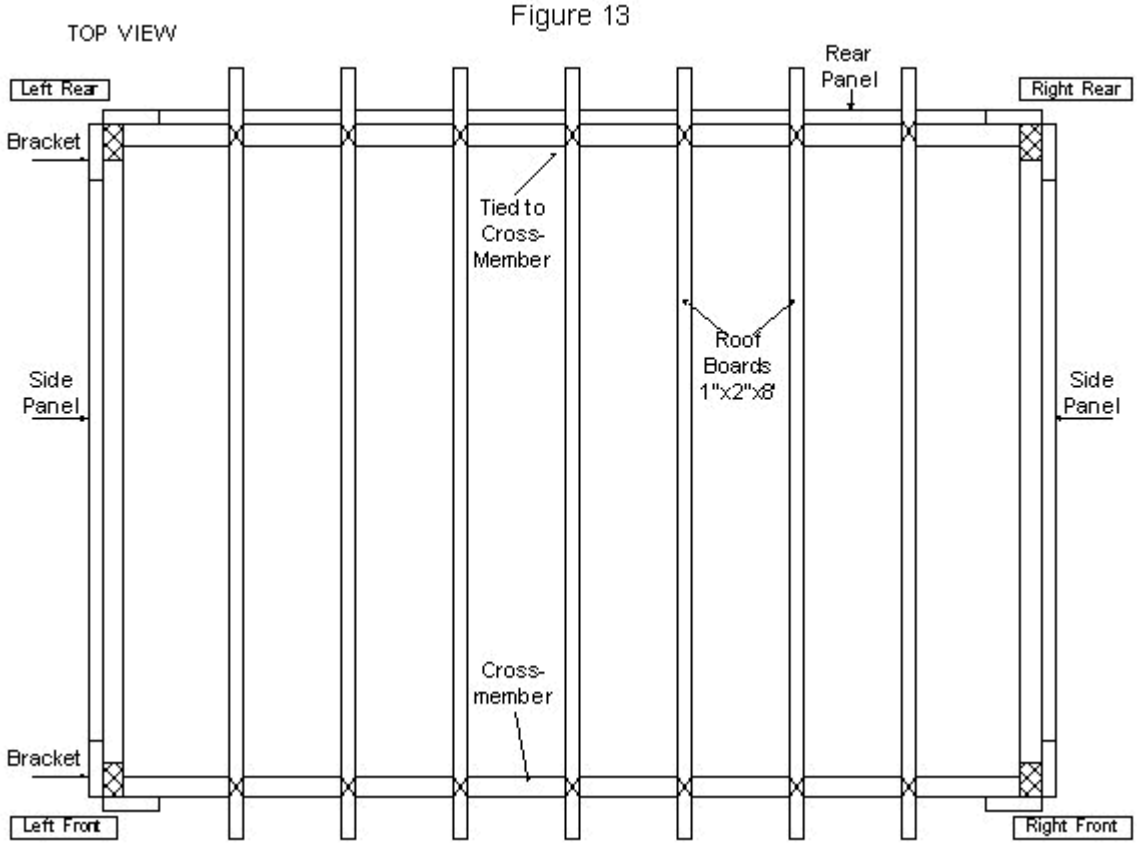
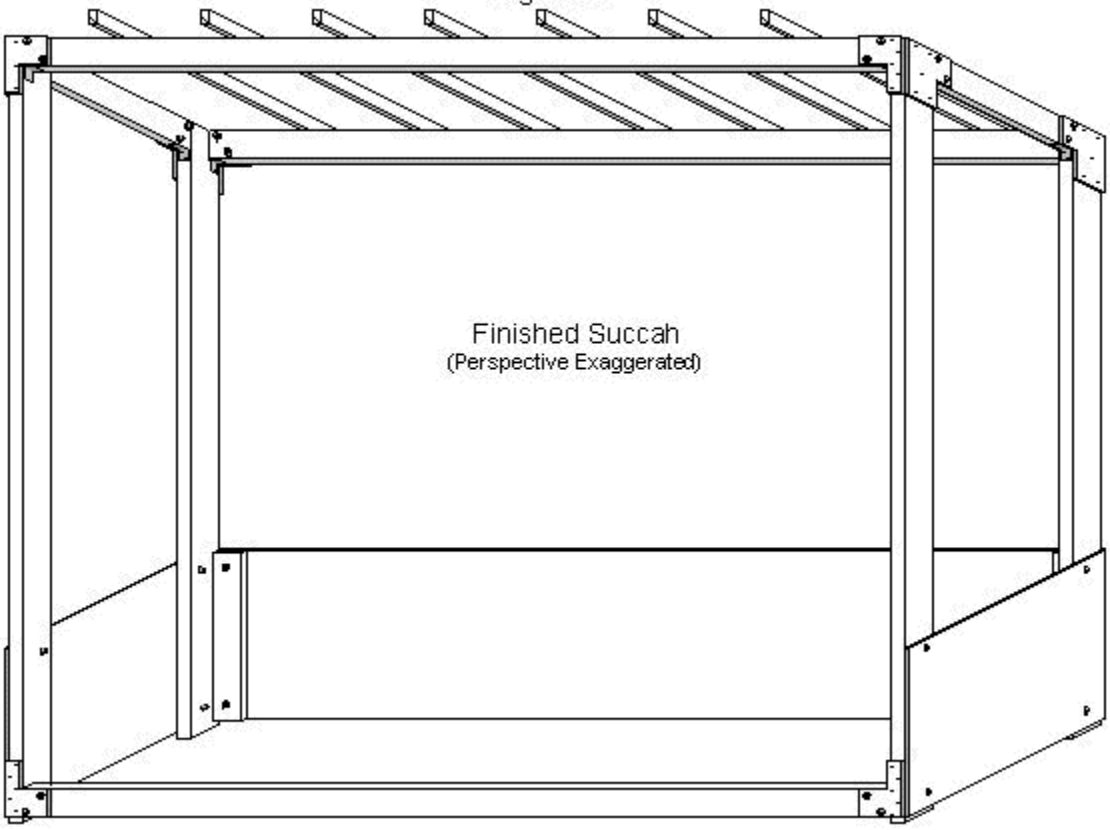


Figure 14



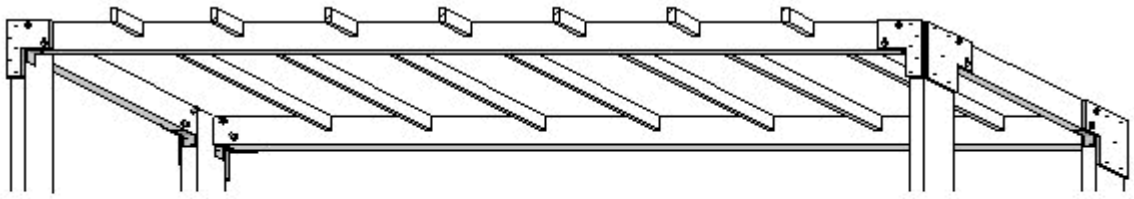


Figure 15: Roof boards slotted in