

# GAZEBO

## MATERIALS

### PRESSURE TREATED LUMBER:

9 pcs 4" x 4" x 8'	5 for posts and 4 for roof beams (cut)
4 pcs 4" x 4" x 12'	Corner posts
5 pcs 2" x 8" x 8'	Floor joists
1 pc 2" x 8" x 12'	Bridging and blocking
7 pcs 2" x 10" x 8'	6 for deck and 1 for steps
23 pcs 2" x 6" x 8'	7 for flooring, 2 for step treads, and 4 for (C) rafters
8 pcs 2 x 6" x 10'	2 each for (A) (B) (D) (E) rafters
3 pcs 2" x 4" x 14'	Rails
1 pc 2" x 4" x 8"	Rails
1 pc 2" x 4" x 10'	Steps and nailer
8 pcs 2" x 2" x 16'	1 for bond timber and 7 for pickets-42 pcs 30" long
4 pcs 1" x 6" x 10'	Across ends of rafters (fascia)
5 pcs 1/2" x 4' x 8'	CD plywood for roof sheeting



**NOTE:** 4-6 pcs 1" x 4" x 12' will be helpful for bracing, etc.  
2 square (6 bundles) shingles-corresponding amount felt paper and roofing tacks (instructions for applying shingles are included on the bundles)

### HARDWARE:

8 pcs 1/2" x 6"	Zinc-plated lag bolts
10 pcs 1/2" x 5"	Zinc-plated lag bolts
16 pcs 1/2" x 3"	Zinc-plated lag bolts
16d	Hot-dipped, galvanized nails for framing
8d	Hot-dipped, galvanized nails for the pickets and fascia
8d	Cement-coated nails for plywood

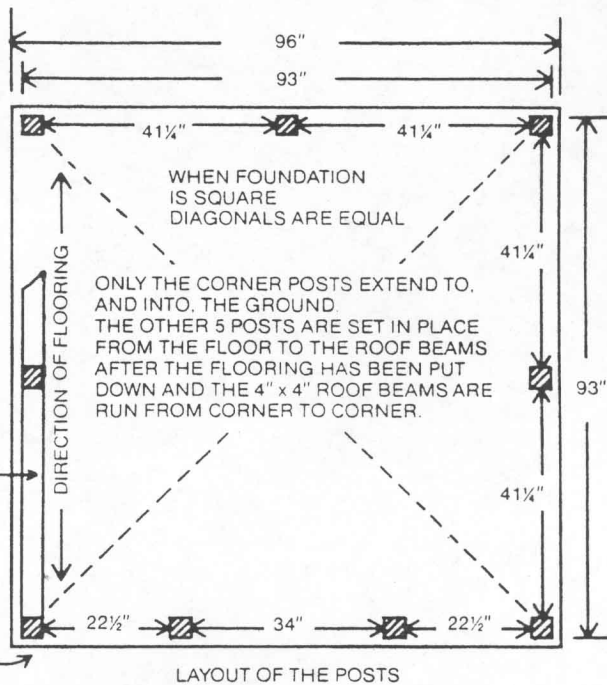
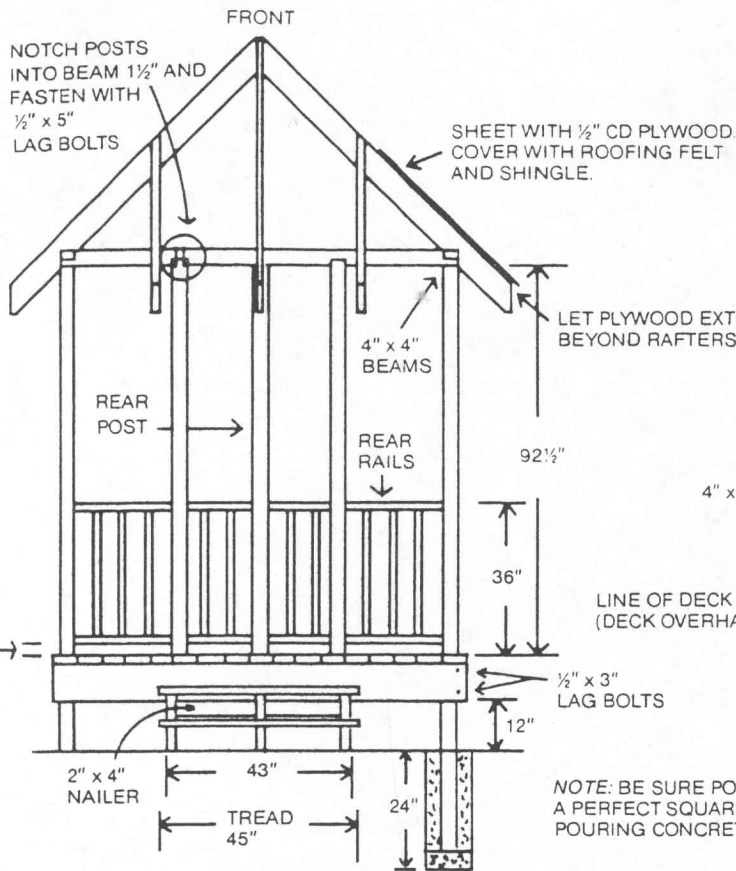
1. Square up the area on which you will build your gazebo by using the method shown under decks (pg. 22). Set the four 4" x 4" x 12' corner posts as described on page 27. Be certain that the posts are plumb and square. Use a string to check the diagonals for square. Adjust before pouring concrete. Pour concrete around the posts and allow at least 24 hours drying time.

2. Use a line level on mason's string to establish a level point on each post, 12" from the ground (at the beginning point). Depending on the fall and swell of your plot, the measurement will vary from the ground somewhat at each post. Your concern is that all 4 notch points are level. Leave the bracing in place to take some of the shock of hammering. Notch the posts to receive the first stringer. Study the diagram carefully for notching positions. Attach the stringers. Notice that the two sides get double stringers.

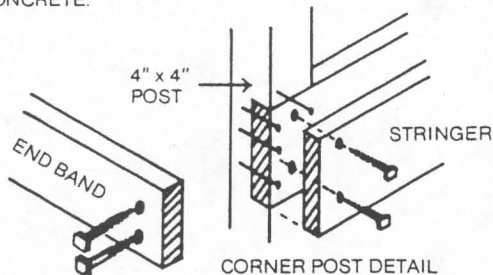
3. Nail a 2" x 2" bond timber to the inside of each double stringer, flush with the bottom. Nail the floor joists and bridging in place. Lay the floor running from front to back. Use a 10d nail as a spacer between boards.

4. Notch the beams as shown and nail them in place. Set the other five 4" x 4" posts and nail them into the floor and beam after assuring that they are plumb.

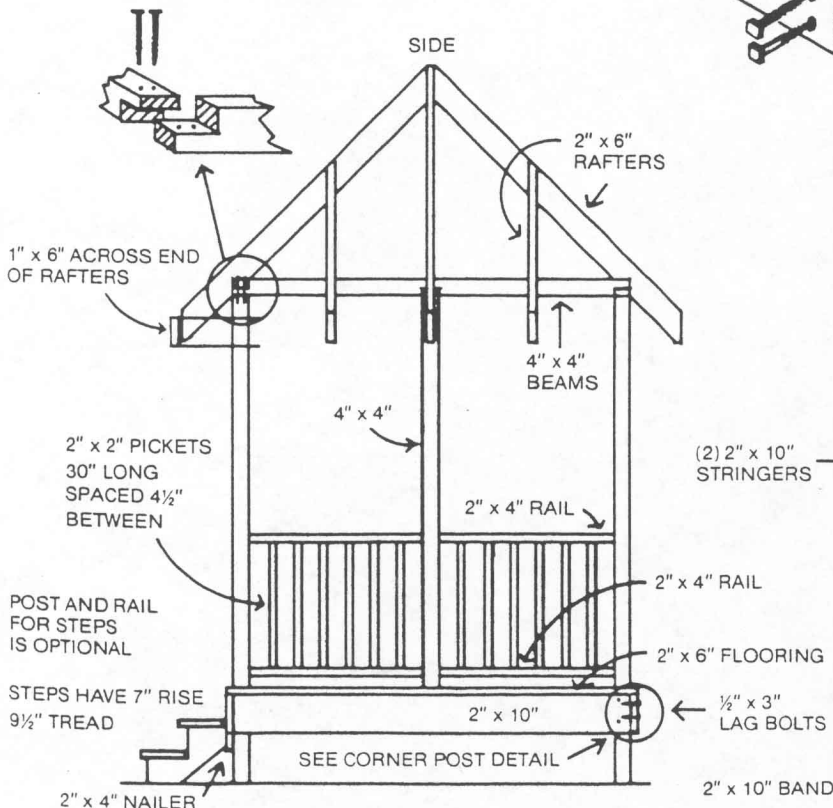
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NAIL THE FIRST STRINGER IN NOTCH FASTEN OTHER 2 WITH ½" x 3" LAG BOLTS

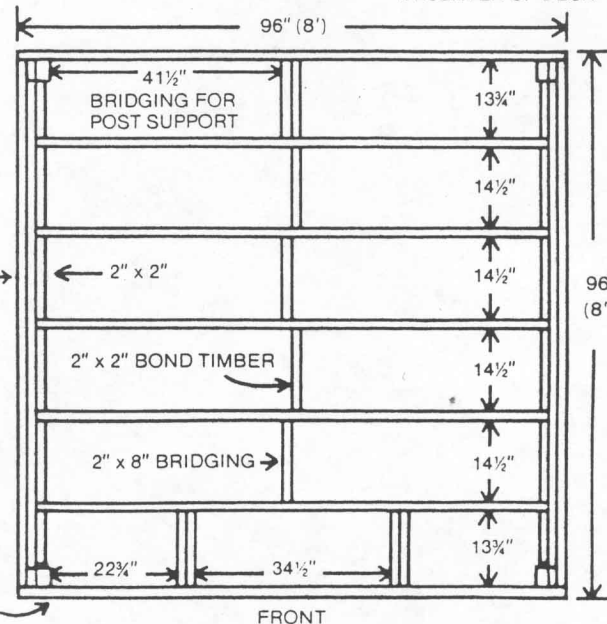


HALF-LAP JOINTS FASTENED TO POST WITH ½" x 6" LAG BOLTS AT ALL FOUR CORNERS



**DECK LAYOUT**

BRIDGING SHOULD BE CUT ⅛" SHORTER THAN MEASUREMENT TO PREVENT SPREADING IN CENTER OF DECK

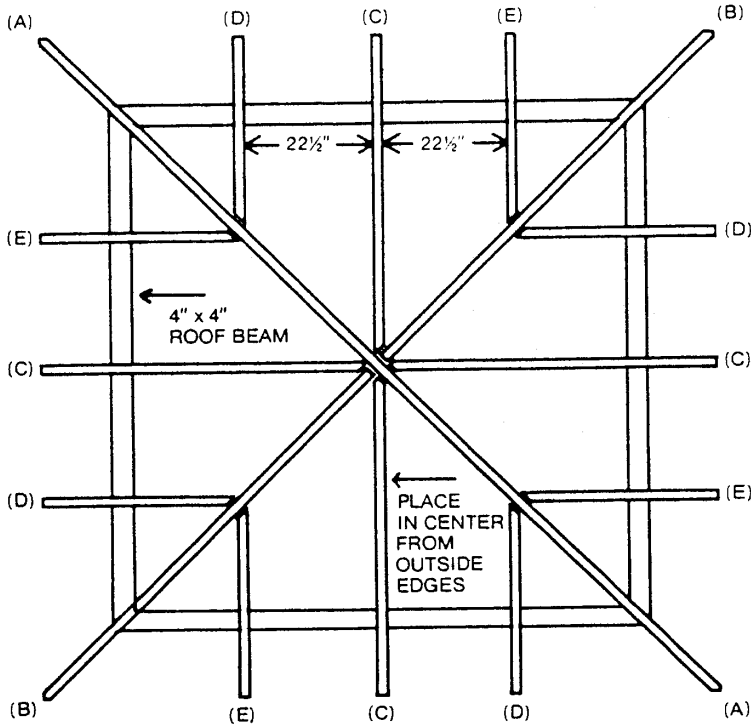


## ROOF FRAMING

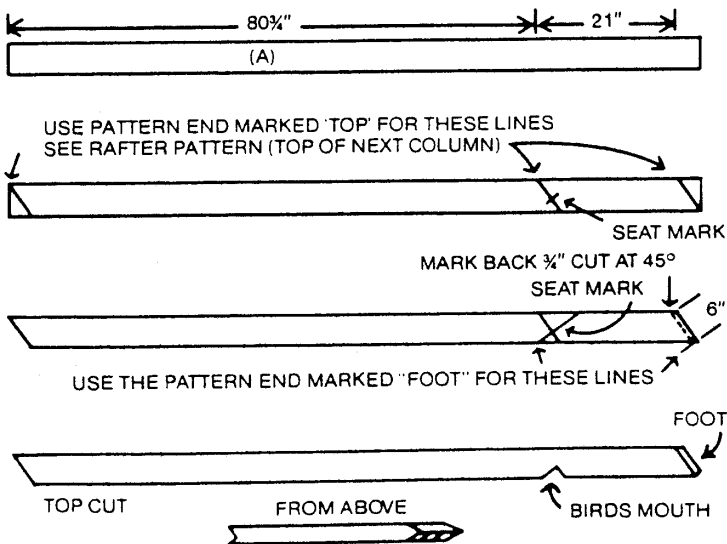
After the posts and beams are in place, check to be sure that the 4 corner posts are plumb and that the beams the rafters will be resting on form a perfect square. (Do this by using the diagonal measurement method.) Brace the entire structure securely.

The rafters are to be erected in order of their corresponding letters. (A) first, (B) second, etc. The rafter measurements that are given here may require some adjustments, depending on variables such as actual lumber sizes, the accuracy of cuts, and the squareness of the structure to this point.

RAFTER LAYOUT SHOWN FROM ABOVE

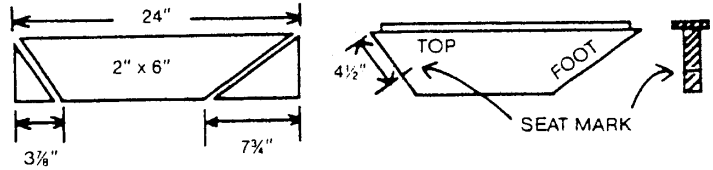


LAYING OFF THE (A) HIP RAFTERS—USE A 2" x 6" x 10'



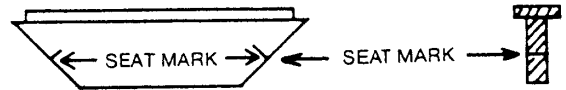
## RAFTER PATTERN FOR (A) AND (B) HIP RAFTERS

Start with 2" x 6" x 24" block. Mark the block  $3\frac{3}{8}$ " out of square on one end and  $7\frac{3}{4}$ " out of square on other end as shown. Connect these marks to the corners and cut. Nail a 1" x 4" x 22" along the top and overhanging the sides. Make a mark  $4\frac{1}{2}$ " from the top corner across the edge of the 2" x 6" and label it "seat".



All cuts to be made on rafters (A) and (B) should be made square through the board (except the very end cut on the foot, mark  $\frac{3}{4}$ " back from square cut and cut  $45^\circ$ ). The (B) hip rafters are laid off the same way as the (A) rafters. The only difference being the first measurement: (A)  $80\frac{3}{4}$ ". (B)  $79\frac{5}{8}$ ". The 21" measure doesn't change.

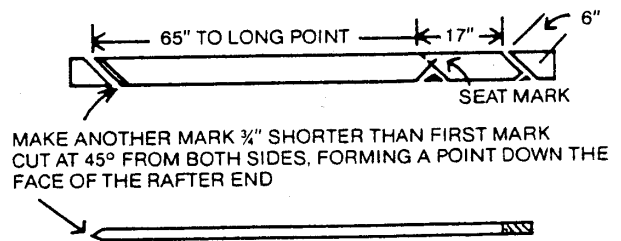
After one rafter is cut out, it may be used as a pattern for the others. Remember to cut the (B) rafters  $1\frac{1}{8}$ " shorter in length from the bird's mouth to the top cut. From the bird's mouth to the foot they should be identical.



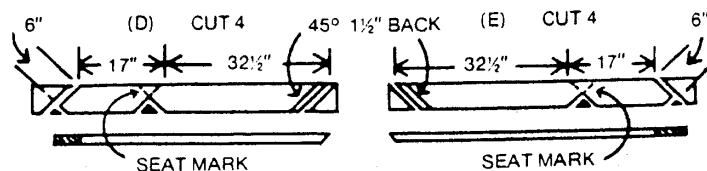
## PATTERN BLOCK FOR RAFTERS (C) (D) (E)

This block is also a 2" x 6" x 24" with a 1" x 4" x 22" nailed on the top edge for a guide. Each end of the block should be cut  $45^\circ$  (or  $5\frac{1}{2}$ " out of square). Again, make a "seat" mark  $4\frac{1}{2}$ " from the top corner. Since both ends are identical, you may use either end for both the top and the seat cuts.

Cut 4 (C) rafters. Use 2" x 6" x 8'



Rafters (D) and (E) are equal dimensions. Cut 4 (D) for the right side. Cut 4 (E) for the left side. Two rafters can be cut from a 2" x 6" x 10'.



## LAYING OUT YOUR DECK

We encourage the fully post-supported method of deck construction as shown here. It prevents problems that may be caused by hanging the deck on your home.

A few carefully placed lag bolts through the stringer will maintain a snug fit against the house. Be very careful to avoid wiring, pipes, etc. and be certain the lag bolts penetrate stringers, joists or studs for firm holding.

If you are building your deck in a grassed area, you may elect to move the sod to another point in your yard. Place black construction plastic under the deck to prevent weed growth.

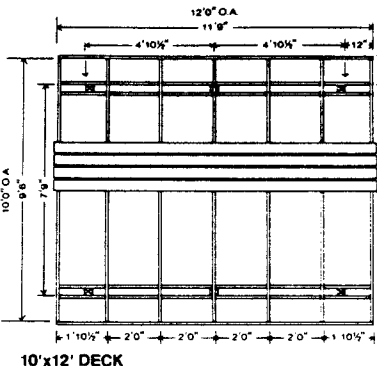
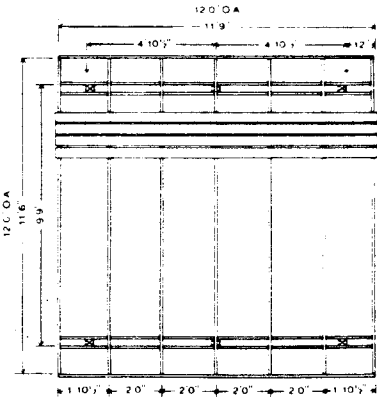
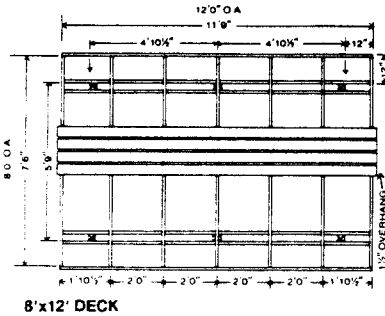
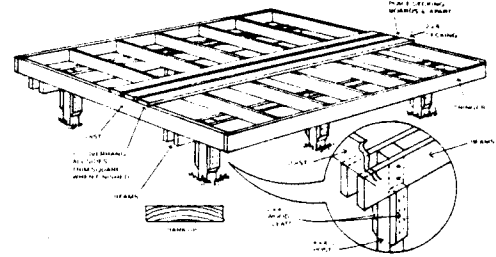
To 'square up' the corners of the site, pull string from the first corner as shown in Illustration A. Make sure it is level. Mark the string at 6' in one direction and at 8' in the other direction. Run a 10' diagonal from one point to the other and you have a squared (90°) corner.

After laying out your site, check square by pulling a diagonal string as shown in Illustration B. When the two diagonals are of equal length your site is square.

Since your deck will overhang, remember to move in one foot in both directions at each corner to establish your post position. Place your stakes three feet past the post locations to allow for construction. Use hot-dipped, galvanized nails.

When all of your deck boards are in place, snap a chalkline along the outer edges, leaving about a 1 1/2" overhang. Then cut the deck 'flush' all the way around using a circular saw. Always wear eye protection.

## CONSTRUCTION DETAILING

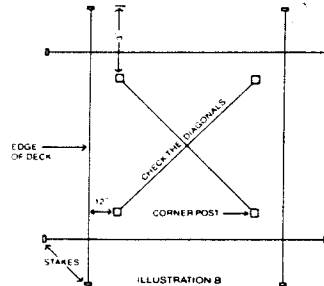
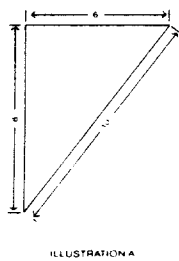


## MATERIALS

### PRESSURE TREATED LUMBER

#### 8' x 12' DECK

Beams	4	pcs	2" x 6" x 12'
Joists	7	pcs	2" x 6" x 8'
Stringers	2	pcs	2" x 6" x 12'
Posts	6	pcs	4" x 4"
Cleats	2	pcs	2" x 4" x 6'
			(Cut into 12" lengths)
Decking	17	pcs	2" x 6" x 12'



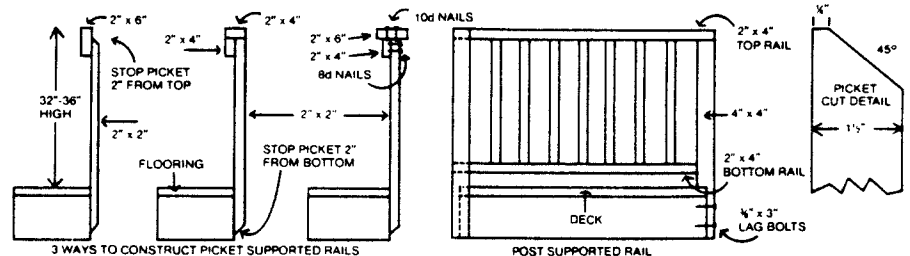
#### 12' x 12' DECK

Beams	4	pcs	2" x 8" x 12'
Joists	7	pcs	2" x 8" x 12'
Stringers	2	pcs	2" x 8" x 12'
Posts	6	pcs	4" x 4"
Cleats	2	pcs	2" x 4" x 6'
			(Cut into 12" lengths)
Decking	25	pcs	2" x 6" x 12'

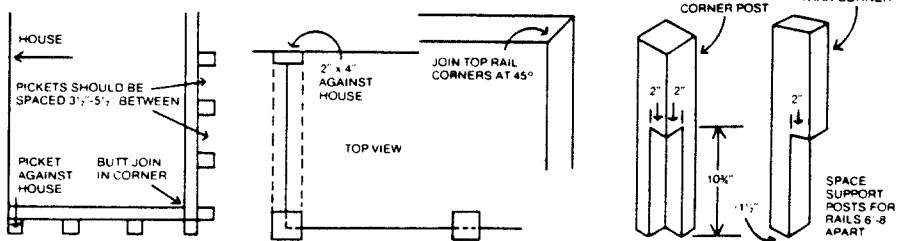
#### 10' x 12' DECK

Beams	4	pcs	2" x 8" x 12'
Joists	7	pcs	2" x 8" x 10'
Stringers	2	pcs	2" x 8" x 12'
Posts	6	pcs	4" x 4"
Cleats	2	pcs	2" x 4" x 6'
			(Cut into 12" lengths)
Decking	21	pcs	2" x 6" x 12'

## RAILING DETAILS



NOTE THESE RAIL AND PICKET COMPONENTS MAY BE INTERCHANGED TO CREATE A VARIETY OF EFFECTS



# SPECIAL BUILDING TIPS

## SETTING POSTS

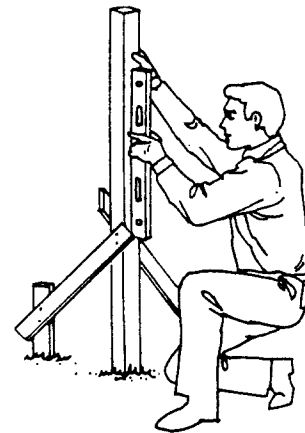
Check your local building codes for the depth of footings required and for other construction details. Be sure to avoid underground pipes or wires. Normally, holes for footings should be at least 24" deep. The depth will depend on the height of the posts required and the severity of your winters. Be certain the posts are deep enough to avoid heaving during freezing and thawing periods.

Locate the post positions according to your plan and dig holes. Holes should be 12" to 16" in diameter.

Shovel in a 6" bed of gravel and pack (tamp), or fill with 3" of concrete (let dry for 24 hours). Top concrete with 3" of gravel to allow for drainage.

Set posts using a level to ensure plumb. Pour concrete around posts. Use strips and stakes to keep in plumb position while concrete dries (allow at least 24 hours for drying).

If you decide to add concrete "collars" around the base, be sure to taper away from post for drainage. (For fence posts only: gravel, stone or brick will do for footing. Dirt may be packed around post. Concrete is optional. But, be sure post is plumb).



## DECKS

When planning your deck, plan for privacy. Position your deck away from air conditioners, traffic noise, and pet areas.

- **Best Shade Area.** To determine the best shade area for your deck in the afternoon or evening, locate your deck on the east or north side of your house. Be sure to plan for protection against wind or blowing rain.

- **Size For Entertaining.** If you plan to use your deck primarily for entertaining, allow a minimum of twenty square feet of floor space per person. If you normally entertain 10 people at a time, your deck should be at least 200 square feet in size. But, keep in mind that

the size of your deck should be in proportion to the dimensions of your house.

- **Protection Against Grass/Weeds.** Cover the ground under your deck with heavy plastic and crushed stone or bark to keep weeds from growing between the floor boards. Unless your deck is about 10-feet high, the grass under it will probably die. If you have bald spots elsewhere in your yard, you may elect to move the sod from the area where you intend to erect your deck, to that point.

- **Proper Layout.** It is very useful to lay out your deck with stakes and string before digging post holes. See page 22 for instructions.

- **Deck Surfaces.** Always try to place the lumber bark side out (or up) when building the surface of the deck. Do this before nailing. This will help surfaces to resist "cupping". See the growth on the ends of the lumber to make sure the bark side of the board is up.

