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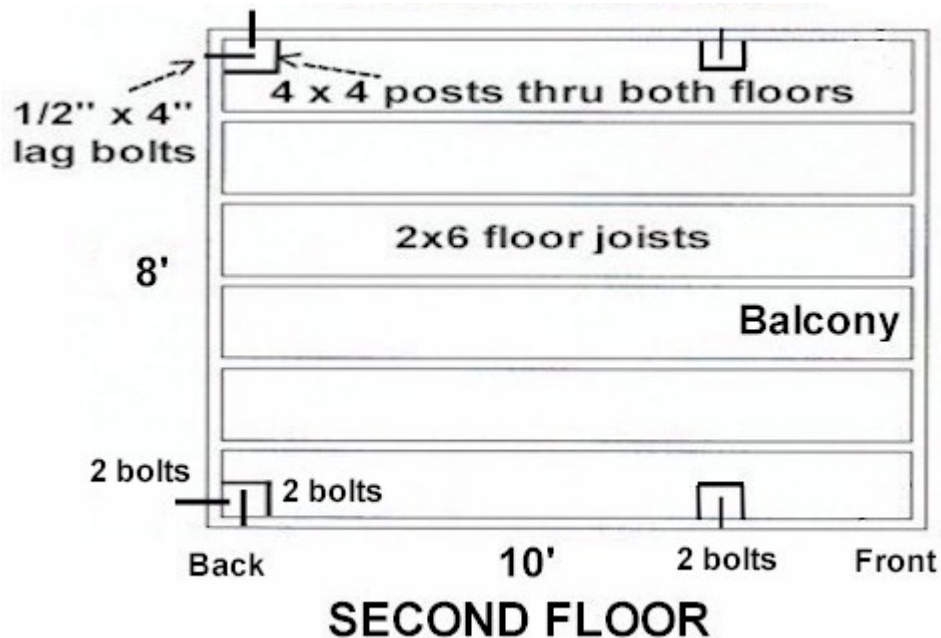
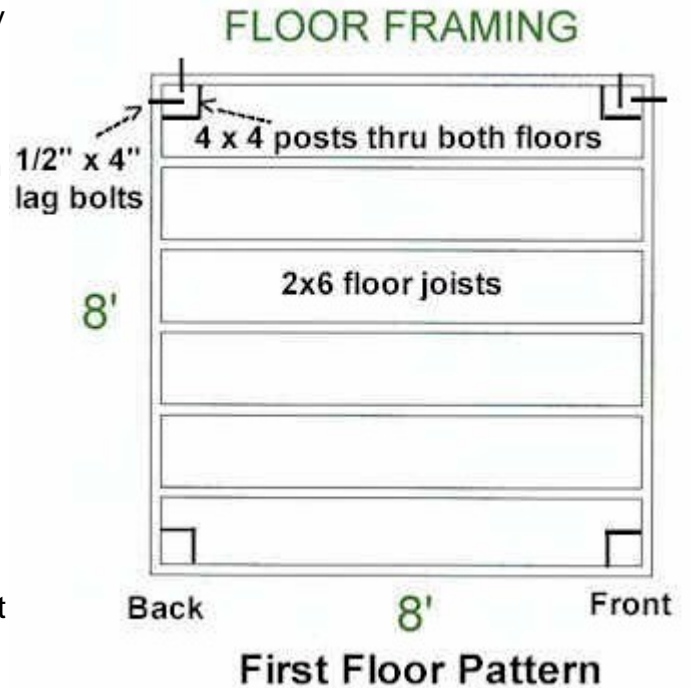
# FORT PLAYHOUSE



**Step 1:** Frame 1st and 2nd floor system following diagrams shown. Use 2x6x8' pressure treated lumber and measure to have outside to outside dimensions exactly 8' x 8' on first floor, and 8' x 10' for the 2nd floor.

**Step 2:** The lumber and measurements on the next step will be determined by what you are going to do with this structure. If you will be making the bottom a storage shed, the height you will need will be taller than if it is a playhouse. For a children's playhouse use 4x4x10' PT lumber uprights. Measure 60" from one end (make that the bottom) and mark a line. This is the mark for the **bottom** of the second floor joists.

**Step 3:** Install 4 - 4x4x10' uprights to first and second floor framed sections following measurements given in step 2. Bolt these uprights in place with 2 - 1/2"x4" Galv. lag bolts at each attachment point. On corners place 2 on each side of the corner.



**Note:** The easiest way to accomplish step 3 is to assemble the unit on it's side. Use a helper when lifting the structure to the upright position.

**Step 4:** With the unit in the upright position we are ready to level and brace it. Level the first floor on the ground. Using a level, temporarily plumb and brace the vertical uprights, while 45 degree braces are installed on the first floor that are shown in the picture. Cut these 24"

long with a 45 degree angle in each end. Bolt these to the bottom of the second floor joists and the 4x4 upright as shown.

**Step 5:** Now it's time to install the plywood floor. Add 3 1/2" long nailers to the sides of the 4x4 uprights at the spot where the plywood floor meets the upright. (the cut out is necessary to allow the upright post to pass through the plywood floor). If you do not add these nailers the floor will be springy. Measure, cut and install the plywood floor on both floors. Use pressure treated 5/8" plywood if possible. (1/2" will work if 5/8" cannot be located)

Note: The extra 4x4's in the photo at the front entrance are optional (location A) . They are in place to hold the railing on both floors.

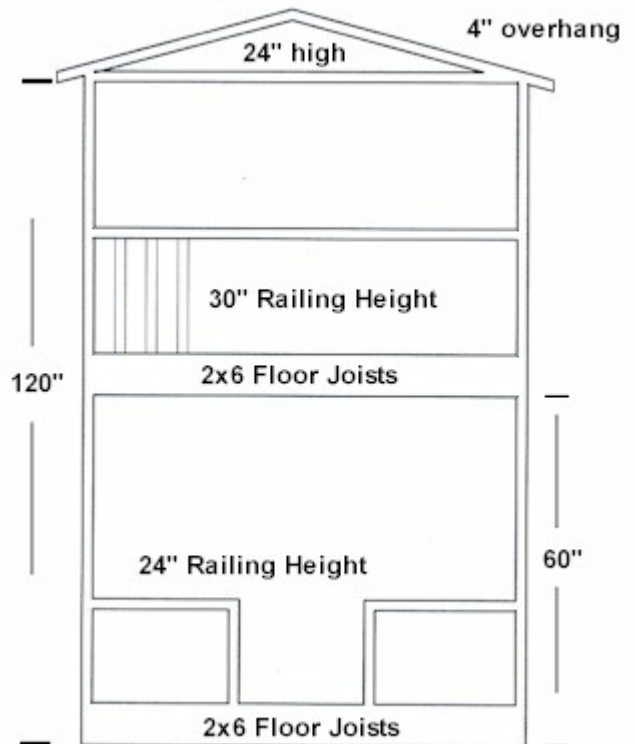
Another Note: This design uses a simple 2x4 ladder (location C) that is mounted in the back of the first floor. The ladder is vertical with a 16"x24" hole cut in the second floor plywood for the visitors to climb through. If you are building a shed in the bottom, you could place the ladder up the outside in the back and cut a section of railing out. Another choice is to have the entrance on the side of the front balcony.

Step 6: Install siding as shown, covering the floor joists as well as the railing area. The siding (location B) can be T-111 plywood siding (or individual fence boards). Siding on the gable ends (location E) use the same materials and instructions.

**Note:** The 45 degree braces on the second floor are 14" long.

**Step 7:** Install railing on front balcony. This railing can be any style you desire. The picket style railing shown fits the rustic western theme of the entire structure.

The railing shown is simple to install. It uses the pickets as the supports...there are no corner supports holding the railing. Note in the photograph how the pickets are bevel cut at the bottom. They are securely fastened to the floor joists on 3 1/2" spacing. The top rail is two 2x6 boards nailed together in an "L" shape. The pickets are nailed in the crook of the "L" as shown. Miter cut the left and right corners of the railing.



**Step 8:** Measure, cut and install the roof. Start by installing the double 2x8 header on each side of the 4x4 uprights. Install header flush with the top of the 4x4's, and bolt assembly together with 1/2" x 8" galv. carriage bolt. Roof system uses 2x4 rafter assemblies on 24" centers with 1/2" plywood sheathing. Make 7 roof rafter assemblies following the measurements in the drawing below. Make these assemblies on a flat surface, and install them 1 at a time with 24" spacing from front to back of the playhouse. After all 7 assemblies are in place and temporarily braced, install the roof sheathing. Overhang the plywood roof sheathing 2 inches all around as shown in the pictures.

Install shingle molding on the outside of the gable ends, on top of the siding at the underside of the roof sheathing. (location F) Install roof shingles of your choice.

