

Like a small bridge, the sitting space connects the planters.

Weekend project

Planter-bench instructions

By Peter O. Whiteley

A lternating thicknesses of lumber give this versatile planter-bench its distinctive horizontal lines. The linear rhythm of the planters' sides repeats in the interlocking bench seat. A handsome detail at each corner of the planters—butted joints with countersunk copper-pipe end caps that mask long deck screws—hints that the distinctive project is easy to build.

The dimensions of a standard 2-by- $4-3^{1/2}$ inches wide and $1^{1/2}$ inches thick—establish the pattern for the project. The thinner strips on the planter are made of rough-sawn 1-by-8s ripped to match the $1^{1/2}$ -inch thickness (or you can purchase 1-by-2s). The planters' inner shells are made of plywood. The planter-bench is 28 inches high, 104 inches long, and 24 inches wide.

The planter-bench has three main parts: two planter boxes and a center stretcher-shaped bench. The long sides of the bench slip into grooves in the planter sides.

Tools and materials

Designed for an intermediate woodworker, the project takes about two days to build. It requires a circular saw, electric drill, 1-inch paddle bit, sander, hammer, nail set, tape measure, combination square, and paintbrush. A table saw is helpful.

The bench shown here is made of "Heart B" redwood decking and rough-sawn redwood fence boards. The wood has been protected and stained with a linseed-oil-based deck stain. You can substitute other wood



suitable for exterior use (cedar, mahogany, or pressure-treated lumbers) and use semitransparent or solidbody stains.

COST: About \$300

MATERIALS

- One sheet ³/₄-inch exterior plywood
- 50 3-inch finishing nails
- Three 8-foot rough-sawn 1-by-8s or six 8-foot 1-by-2s
- 17 10-foot 2-by-4s
- 50 1¹/₄-inch deck screws
- 1 pound 1¹/₂-inch finishing nails
- 40 ³/₄-inch copper-pipe end caps

Photo at left shows copper-pipe end caps, countersunk in 2-by-4 sides, that mask screws joining the butted boards. For easier assembly, bring the three parts separately to the site, slide the long sides of the bench slide into the slots (below), secure with screws, and slip in the remaining caps.

- 100 2¹/₂-inch deck screws
- 1 gallon roofing tar
- Wood putty
- 1 quart stain or sealer
- Tube of all-purpose construction adhesive
- Heavy plastic sheeting

DIRECTIONS Planter boxes

1. Cut the plywood into the sides, ends, and bottoms for both planter shells following the cutting plan. Using 3-inch finishing nails, assemble the box shape so the side pieces sandwich the ends. Check for squareness before nailing on bottom.

2. With a table saw, rip the 1-by-8s into $1^{1/2}$ -inch-wide strips, making 1-by-2s. Skip this step if you're not ripping your own lumber.

3. Measure width of sides of plywood shells. (They should all be $19^{1/2}$ inches.) Cut 20 lengths of 2-by-4s and 16 lengths of 1-by-2s to that size.



4. Place two 2-by-4s on a work surface and overlay the plywood shell on its side so one 2-by-4 is flush with the bottom and sides. (The other board merely levels the box.) Attach the bottom board with two $1^{1}/_{4}$ -inch screws that run through the *inside* of the box into the back of the board.

5. Flip the box over so the attached board is face up, then butt a $19^{1/2}$ -inch-long 1-by-2 next to it (with its ends flush with the edges) and attach to plywood shell with three $1^{1/2}$ -inch finishing nails.

6. Alternating 2-by-4s and 1-by-2s, complete side by repeating steps 4 and 5. (Remember, the screws attach from the inside.)

7. Repeat for the opposite side of this shell. The plywood front and back pieces will be uncovered. Repeat these steps for the other shell.

8. Measure width of the front and back of each planter box from outside edge of the just-added 2-by-4 sides. (It should be 21 inches.) Cut 16 lengths of 2-by-4s to that length.

9. Measure between the outside edges of the 1-by-2s. (This will vary depending on actual thickness of the rough-sawn boards.) Cut 16 1-by-2s to that size.

10. Near each end of the unmounted 2-by-4s, mark a point on the outside face that's centered and $\frac{3}{4}$ inch in from the end. At each marked point, use an electric drill with the 1-inch paddle bit, drill a $\frac{7}{8}$ -inch-deep hole. (Experiment on a scrap piece to see that this depth will allow a copper-pipe end cap to extend $\frac{1}{8}$ inch beyond the wood's surface.)

11. Work from the bottom up and align ends of the unattached 2-by-4s with the side boards, adding two alternating lengths of 2-by-4s and 1-by-2s. Attach the 2-by-4s with $2^{1/2}$ -inch screws centered in the countersunk holes. (The 1-by-2s secure with $1^{1/2}$ -inch finishing nails.)

12. Temporarily position scrap pieces of 2-by-4 with screws for the

middle 2-by-4: They mark the location of the bench's front and back boards. Finish the fronts and backs by adding the next two layers of 1-by-2s and 2-by-4s.

13. Make tops for both planters from mitered 2-by-4s that extend 1 inch beyond the top edge. Do not attach them.

14. Turn completed boxes upside down and add a bottom layer of butted 2-by-4s. This layer should align with the outside edges of the upper 1-by-2s and also extend beneath the plywood bottom. Secure them with $2^{1/2}$ -inch screws.

15. Cut and secure $3^{1/2}$ -inch-long pieces of 2-by-4 at each bottom corner. They'll act as feet and elevate the box to allow air circulation.

16. Drill 1-inch holes in the bottom for drainage.

Bench

The main section of the bench measures 60 inches long, but the front and back 2-by-4s extend 21 inches and slip into the slots on the planters where the temporary 2-by-4s are currently located.

Cut about 40 2-inch-square spacers from pieces of ¹/₈-inch cardboard.
 Cut seven 60-inch-long 2-by-4s and rip three of them into 1¹/₂-inch wide pieces—which is equal to 2-by-2 dimensions.

3. Arrange the four remaining 2-by-4s with best sides down on a work surface and place a 2-by-2 between each board. Randomly insert four or five of the cardboard spacers between each board to separate boards by $\frac{1}{8}$ inch. Align and square the ends of the boards.

4. Cut two 102-inch-long 2-by-4s and mark points 21 inches from each end on the inside face. Position them on each side of the assembled boards so the ends of the center grouping align on the lines marked on the inside face. Add cardboard spacers between the last layers.

5. From the remaining 2-by-2s, cut

five 19¹/₂-inch lengths, which serve as cross supports for the bench boards. Overlay one at each end of the grouped boards and secure them with $2^{1/2}$ -inch deck screws into each board. Equally space and add three more cross supports.

6. Countersink $2^{1/2}$ -inch screws through the 102-inch-long seat into the ends of crosspieces.

7. Remove the temporary 2-by-4s centered in the box front and back and, with a helper, slip the extending ends of the stretcher-shaped bench into the openings.

8. On each of the extending ends, mark position for two holes that will align with the existing holes in the adjacent 2-by-4s. Drill holes of same depth at these locations.

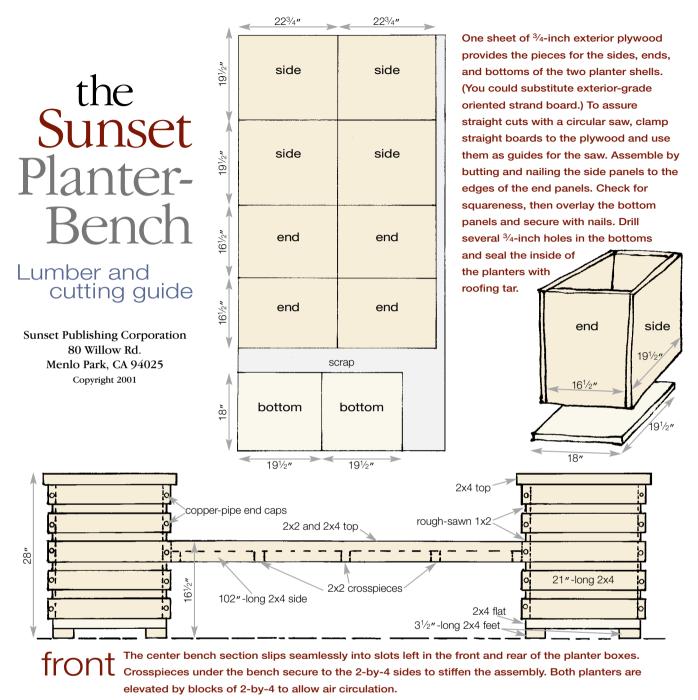
Finishing steps

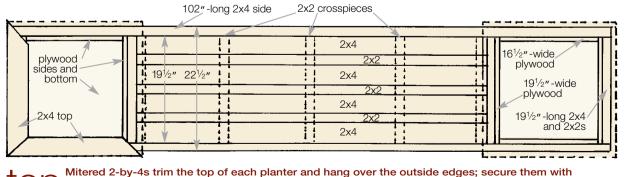
1. Paint the interior of each box with roofing tar, which will protect the plywood over long-term exposure to damp soil. Spread a drop cloth, use an old paintbrush, and wear disposable plastic gloves and old clothes.

2. Add the tops to each box with countersunk 3-inch finishing nails. Sand, fill countersunk screw and nail holes with wood putty, and stain the unfinished wood parts.

3. When stain has dried, turn boxes on side, with a hole side up. Spread adhesive around inside of each hole and insert a copper-pipe end cap. Repeat for all holes in both boxes but not for the holes in bench sides. 4. It's easier to transport the project in these three basic components and leave final assembly until they arrive at a final site. (See photo at left.) Once the boxes and bench are reassembled, all you have to do is join the parts together with $2^{1/2}$ -inch screws running through the bench sides and into the boxes. The end caps can be slipped in but not glued in case you want to disassemble and move the unit in the future.

5. Before adding plants, line the boxes with heavy plastic sheeting. ◆





countersunk nails. The bench width, which includes a ¹/₈-inch space between each of the boards, should exactly match width of plywood side of planter boxes.