

# Details for a Sweet Entry Porch

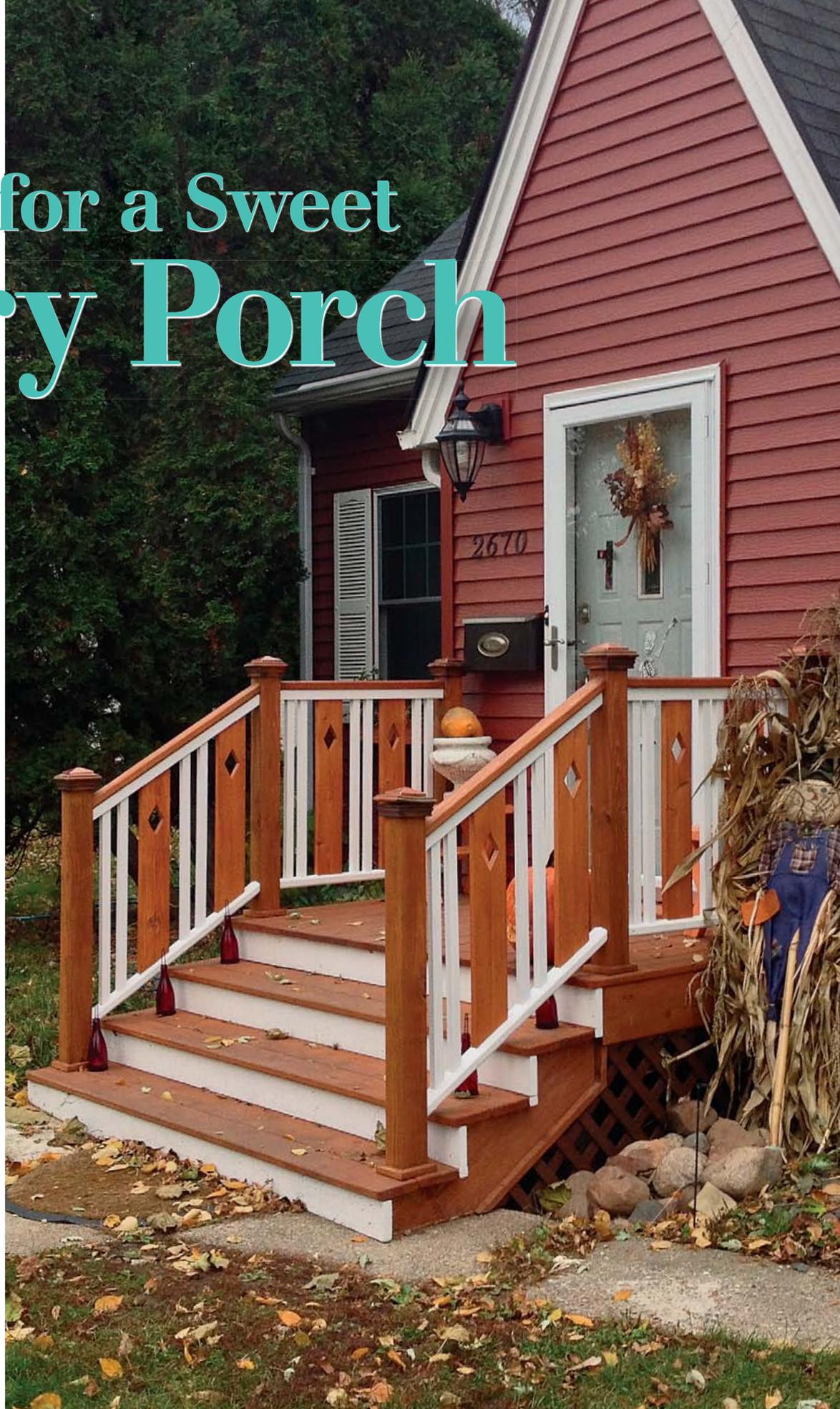
Simple new entry stairs and railings respect the home's design

BY BRIAN CAMPBELL

When the owners of this small, steeply roofed Tudor cottage asked me to replace their existing concrete stoop with a new front porch, I looked for period details to tie the new work to the old house. There was also a practical problem to solve: The foundation wall where the stoop had been had water-intrusion issues. The homeowners hoped that in addition to complementing the house, my work would help to dry the basement.

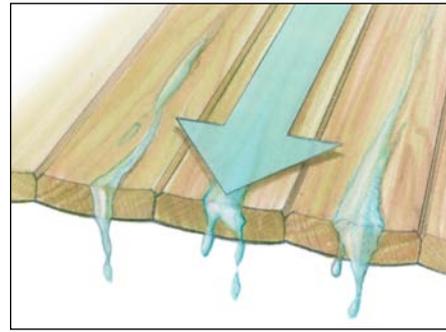
## Working with an existing footing

Because I could use the footings and two stemwalls that had supported the concrete stoop, the foundation for this project was already partially established. I reused those footings by knocking down most of the above-grade portion of the stoop, then filling the block cores with concrete and rebar that tied into four new piers. To address the

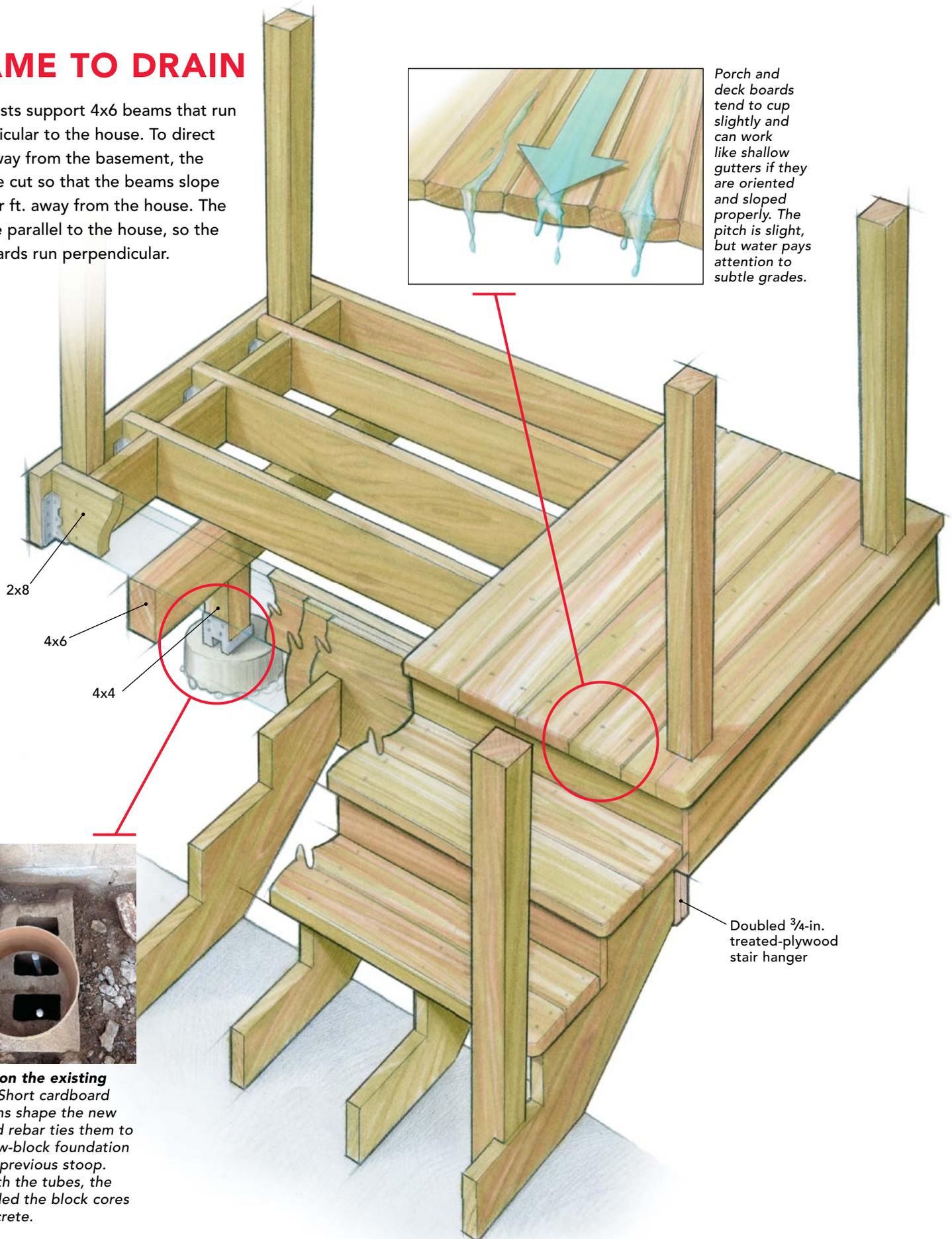


## FRAME TO DRAIN

Short posts support 4x6 beams that run perpendicular to the house. To direct water away from the basement, the posts are cut so that the beams slope  $\frac{1}{8}$  in. per ft. away from the house. The joists are parallel to the house, so the deck boards run perpendicular.



Porch and deck boards tend to cup slightly and can work like shallow gutters if they are oriented and sloped properly. The pitch is slight, but water pays attention to subtle grades.



**Building on the existing footing.** Short cardboard tube forms shape the new piers, and rebar ties them to the hollow-block foundation from the previous stoop. Along with the tubes, the author filled the block cores with concrete.

# THE RAILING IS WHERE THE DETAILS ARE

The baluster stock is a combination of pressure-treated lumber, which will be painted, and cedar. Clear, vertical-grain (CVG) stock was selected for its stability. For a look that is more substantial than 1x stock and more refined than 2x, 2x6 stock was planed to 1 1/8 in. Three 1 1/2-in.-wide balusters came from a 2x6 blank. The 5 1/2-in.-wide cedar balusters were ripped to allow cutting the diamond on a bandsaw. The halves are not glued, but simply screwed to the railings.



**Peaking the railing.** The top and bottom rails were each beveled at 10° to shed water. They were then sanded and the bottom edges rounded over.

water problem in the basement, I graded the dirt where the stoop had been to slope away from the house. This minor change to the grade, along with 6-mil black plastic sheeting below the porch, now carries away most water.

## Detailing the porch floor and rail

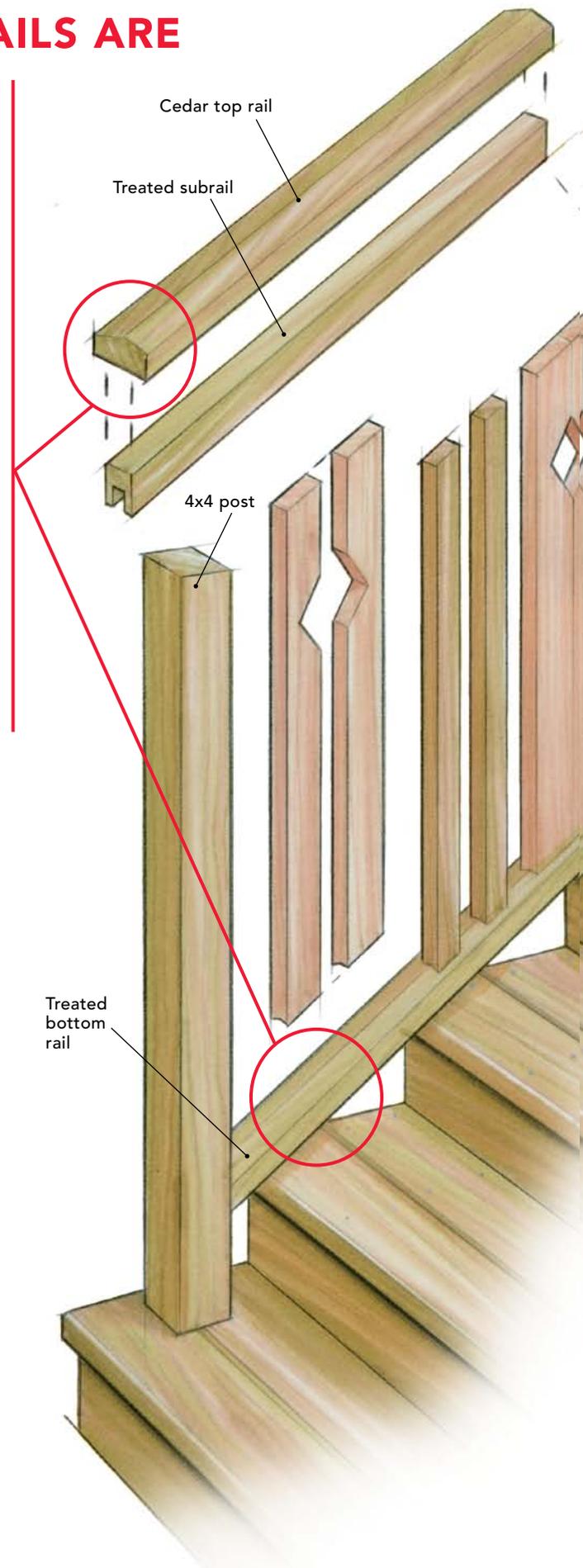
With the existing piers to work with, it made sense to make this a freestanding porch and to run the joists parallel and the flooring perpendicular to the house.

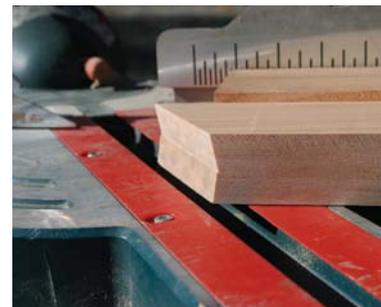
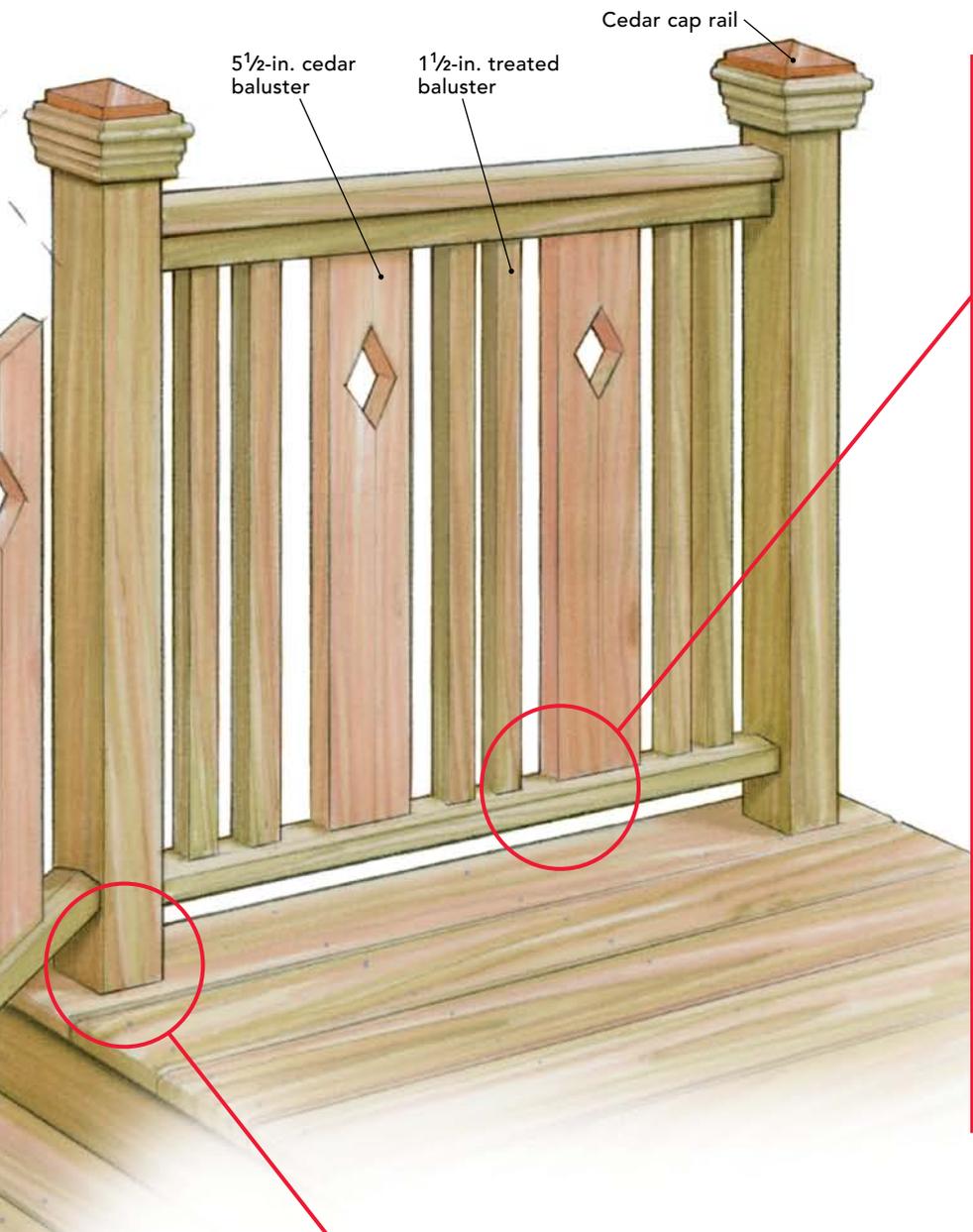
I figured the flooring layout from the center of the framing, so I could center a board or center a space between two boards. Fifteen 6-in.-wide boards were 2 in. too narrow, and 16 were 3 1/2 in. too wide. I went with the smaller number but created two boards at the ends that were 1 in. wider than the rest. For each one, I ripped two boards to 3 1/4 in., then joined the pieces together using Gorilla Glue to create 6 1/2-in.-wide boards. I made these new boards out of two pieces from the same board so that the grain would match perfectly.

To integrate the railing with the house, chunky, flat balusters such as those often found in Tudor architecture combine with diamond cutouts that mirror the 18-in-12 roof pitch. To shed water, I beveled the rails 10° to form peaks. The tops of the balusters are captured in a rabbeted subrail. I sanded the peak on the cedar top rail to soften it and to make it comfortable to hold. A valley milled in the bottoms of the balusters fits nicely over the peak in the bottom rail.

These balusters also center themselves on the rail, speeding up assembly. This design can be found in 18th-century porch balustrades in Williamsburg, Va. With power tools available today, it makes even more sense to add these touches. □

Brian Campbell is a carpenter in Minneapolis. Photos by the author, except where noted.





**Cutting the valleys in the balusters.** With a compound-miter saw set at a 10° bevel and at half the baluster thickness, two cuts create the valley that mates perfectly with the peak on the railing to shed water and center each baluster. The balusters for the stairs were cut the same way, but with the saw set at the stair angle.



The layout of the floor didn't work quite right with the 5 1/2-in. decking. To correct this, the author glued together a 6 1/2-in.-wide deck board for each end of the porch. The railing mostly hides the glue joint, and the wider boards are barely noticeable.

