

Add a custom touch where your roof needs a little support

BY GARY M. KATZ

Building Craftsman-Style Brackets

I've always been taken with the Craftsman style. I especially like the pillowed look of the style's multistep brackets: big, sturdy pieces of decorative joinery used to support deep eave overhangs and small roofs. When I designed my new shop and guest cabin, I wanted to include lots of them as eave supports. Most of the brackets I've seen have a diagonal brace that's mortised into the upper beam and lower post, and the mortises are cut at the same angle as the brace. I didn't want to do all that chiseling and sawing for 20 brackets. Instead, I designed my brackets so that all the dadoes could be cut with a router and a template and all the braces could be cut on a miter saw and notched on a tablesaw. The brackets

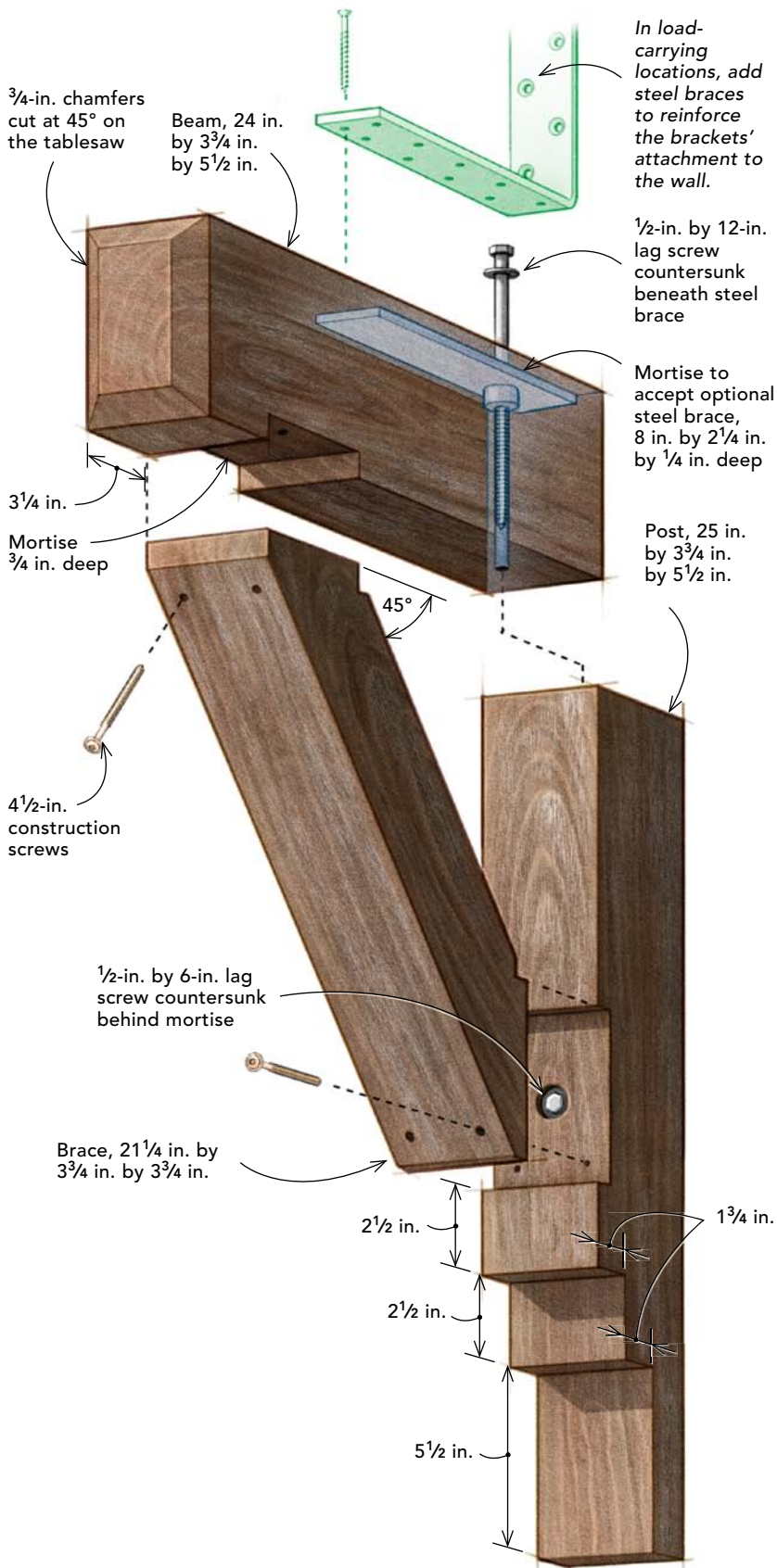
Drawings: John Hartman



BONUS Turn the page for a detailed construction drawing of this entry roof.

USE TEMPLATES AND JIGS

The parts for the brackets were made in the shop with an efficient system of templates and jigs. Each bracket was dry-fit, then stained and assembled in place.



Retain consistency with templates. Draw each of the three parts of the bracket full scale on 1/4-in. hardboard, and cut it out as a template.



One-pass notch. After mitering both ends of the diagonal brace, notch the ends with a dado blade mounted in a tablesaw.



Router jig makes quick mortises. Used with a plunge router, this jig guides the cuts for the brace mortises. The workpiece is captured between adjustable stops, which can be repositioned for the longer vertical post.



Fast cuts on thick stock. To cut the pillowed steps in the bracket post, first crosscut each step, then rip away the waste.

shown here support a small gable roof that shelters an exterior door on my shop.

Make templates first

The siding I used on my house and shop is reclaimed beetle-kill pine that's milled and prefinished by Teton West, a lumber company in Wyoming, so I bought 4x6 beam stock for the brackets and exterior trim from them, too. The only thing I had to do is rip the stock down to the right size. I used a 1-in.-wide carbide blade on my bandsaw to make perfectly straight cuts.

With my contractor, Scott Wells, I started the job by making a full-scale drawing of the brackets on 1/4-in. hardboard. We then cut out templates for each of the three components: brace, post, and beam.

Cutting the parts

With the stock milled, the next step was to cut the miters for the braces on the miter saw, then to nip off the long point of each miter so that it would be square and perpendicular to the post and beams. We cut the chamfers on the tablesaw with a stop attached to the miter fence.

Next, we used a tablesaw with a dado blade to cut the notches in both ends of each brace. For repetitive work, there's nothing better than making jigs out of your miter-gauge fences. We used the template to dial in the jig and the depth of the dado cut.

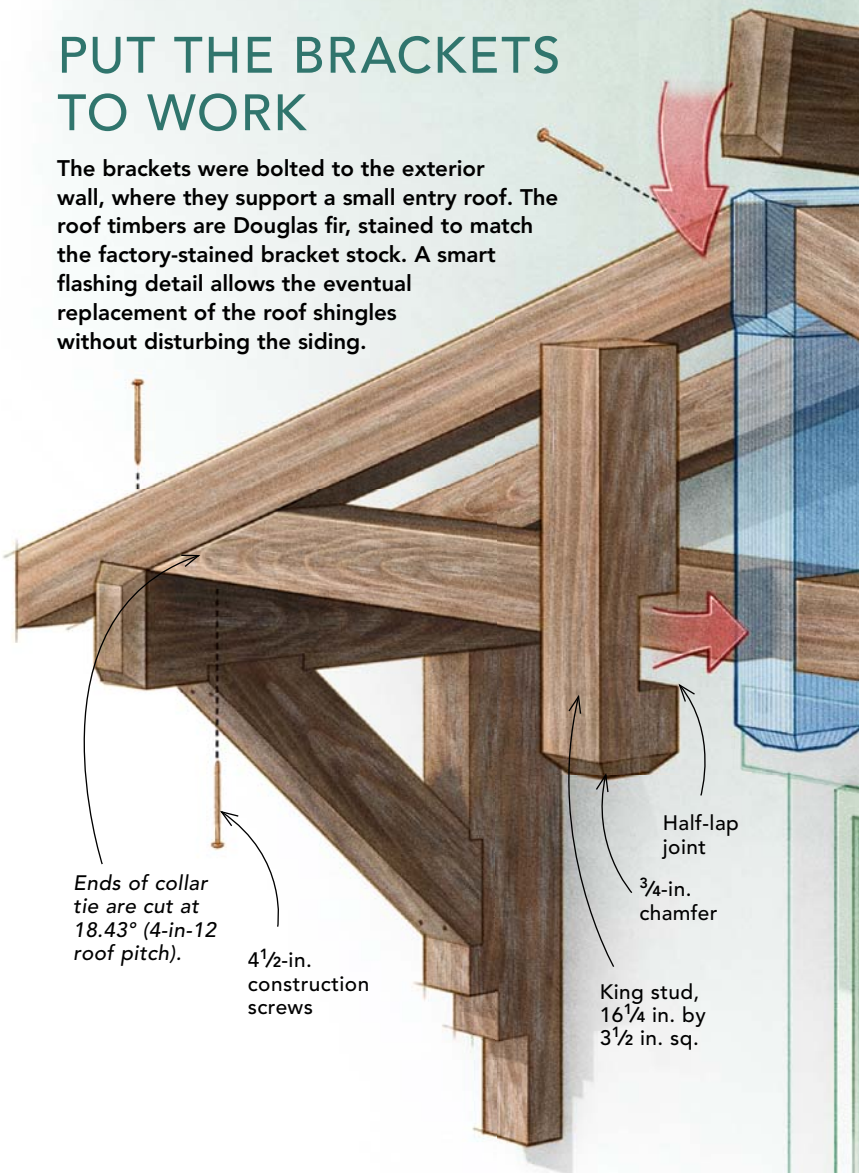
We also made a template with two stops, one for the beams and one for the posts, to plunge-rout the dados that receive the braces. We used the bandsaw to cut the pillowed steps in the legs.

The time invested in making templates, jigs, and stops really paid off. We were able to cut all the pieces and assemble 20 brackets in no time and didn't make any mistakes. The joinery needed only a slight amount of trimming for minor discrepancies in material thickness.

To make the installation easier for the structural brackets that would support the small gable roofs, we added steel braces to the tops of the arms. Covered by the roof, the brackets didn't need additional flashing. Beam ends that project past the roof are chamfered to drain water. □

PUT THE BRACKETS TO WORK

The brackets were bolted to the exterior wall, where they support a small entry roof. The roof timbers are Douglas fir, stained to match the factory-stained bracket stock. A smart flashing detail allows the eventual replacement of the roof shingles without disturbing the siding.



Contributing editor Gary M. Katz is the driving force behind the Katz Roadshow and THISisCarpentry.com. Photos by the author.

STEP BY STEP ASSEMBLE THE BRACKETS IN PLACE

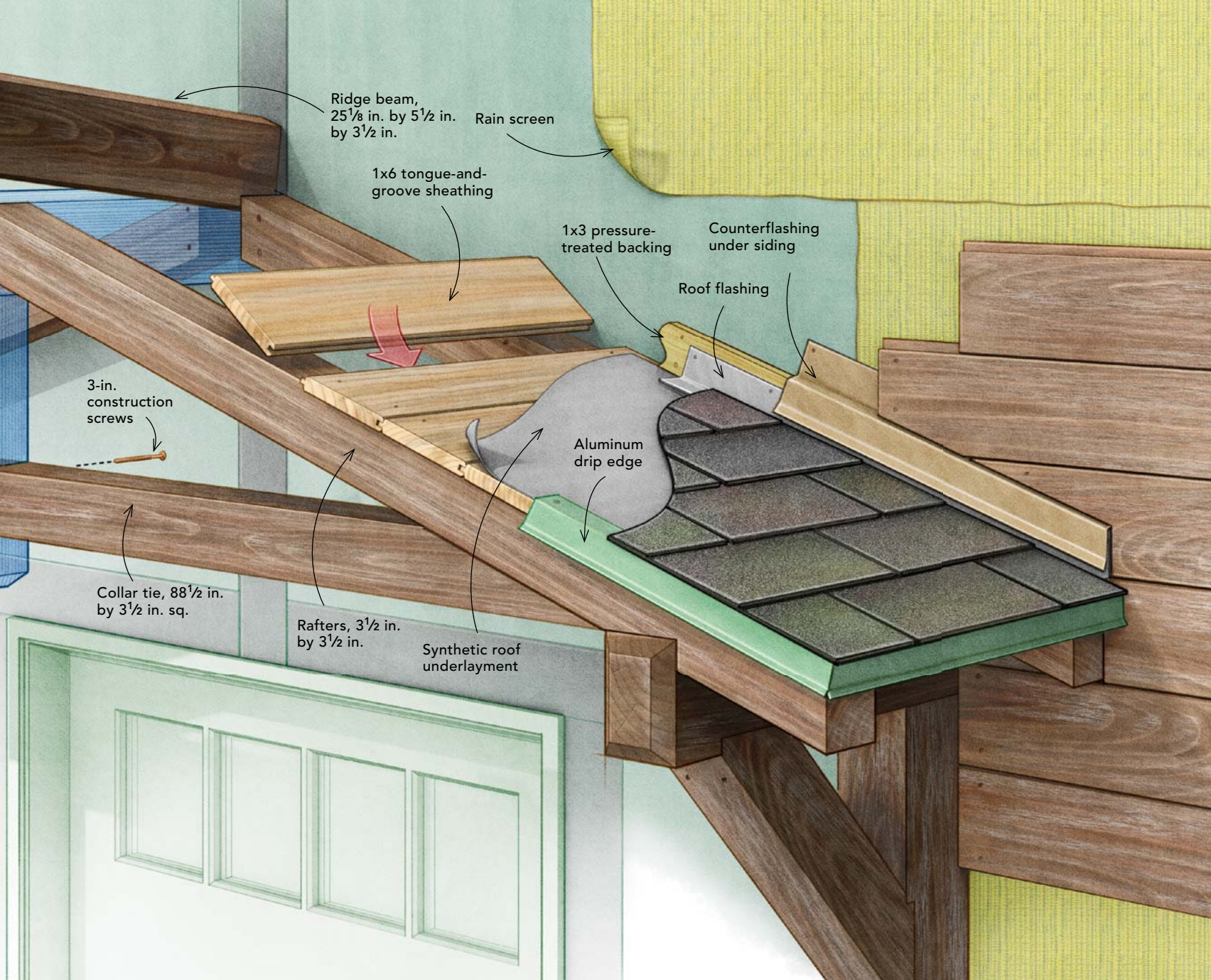
1 After tacking a block to the wall as a rest, mount the post plumb on the wall, securing it with a 1/2-in. by 6-in. lag screw countersunk in the mortise and driven into 4x4 blocking installed in the walls at the framing stage.

2 Fasten the brace into mortises with 4 1/2-in. construction screws.

3 Attach the beam to the post with a 1/2-in. by 12-in. lag screw, countersunk into the mortise meant for a steel brace.

4 Screw the brace to the wall and to the top of the bracket.





Ridge beam, 25 1/8 in. by 5 1/2 in. by 3 1/2 in. Rain screen

1x6 tongue-and-groove sheathing

1x3 pressure-treated backing

Counterflashing under siding

Roof flashing

3-in. construction screws

Aluminum drip edge

Collar tie, 88 1/2 in. by 3 1/2 in. sq.

Rafters, 3 1/2 in. by 3 1/2 in.

Synthetic roof underlayment



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SOURCES

- Prefinished timbers**
Teton West Lumber
- Steel braces**
Available from any local steel fabricator/metal shop
- Construction screws**
Simpson Strong-Tie SDWS
- Solid latex stain**
Custom color-matched to Olympic stain used by Teton West