

West Coast Overhang

A framing technique for soffit-covered eaves

by Don Dunkley

Until a few years ago, the typical eave detail on the West Coast was the exposed overhang. When we built ranch-style houses, you could see the rafters and the underside of the roof sheathing (usually ship-lapped boards exposed to view). But the current trend where I build in California's Central Valley is toward the Mediterranean look; more and more of the houses we frame have soffit-covered eaves.

In the past, the crew used to grumble and moan when they got to the soffit-framing part of a job. The framework for our first few attempts consisted of sun-baked 2x4s salvaged from the scrap pile. We scabbed them to the rafter tails and toenailed them to a horizontal nailer affixed to the wall studs. Cobbling together row upon row of outriggers around the eave line took a lot of time, and leveling each one was equally frustrating.

About a year ago, however, I learned of a slick method for installing soffits that uses the fascia to support the outboard edge of the soffit. Our crew quickly put the idea to the test, and the job went so smoothly that we now use the method as standard procedure.

In the groove—For soffit material, we typically use $\frac{5}{8}$ -in. thick plywood with a resawn face, and slip it into a groove cut in the backside of the fascia (top drawing at right). Plywood this thick is stiff enough to span up to about 30 in. without additional support.

Before cutting any rafters, I calculate the position of the level cut and the plumb cut on the rafter tails. First I step off 1 in. on the fascia (usually a 2x10) to allow for a reveal below the soffit. Next I mark off $\frac{3}{4}$ in. to allow for the soffit groove. I make the groove $\frac{1}{8}$ in. wider than the thickness of the plywood. The remaining width of the fascia represents the maximum depth of the rafter plumb cut. I always lay out the level cut on the rafter to end up a little bit above the groove in the fascia— $\frac{1}{2}$ in. to $\frac{3}{4}$ in. will do. This makes up for the inevitable variations in framing lumber that can bring the bottom of the level cut into the plane of the soffit. I make all the level cuts on the rafters before stacking the roof.

The top edge of the fascia should be beveled to match the pitch of the roof. Most of the lumberyards that I deal with can provide this service. If you don't, take the time to bevel the fascia yourself. It will give you a consistent line at the roof edge and solid bearing for the roof sheathing.

I use my router, guided by a 1x4 tacked to the back of the fascia, to plow the groove. My Skil model 5000 router is closing in on 20 years old, and it's rated at a mere $\frac{7}{8}$ hp. But with a $\frac{3}{4}$ -in. carbide bit it still gets the job done (though it takes two passes to get to the full $\frac{1}{2}$ -in. depth of the groove).

I rip my soffit plywood about $\frac{1}{4}$ in. shy of the overall dimension between the stud wall and the bottom of the groove in the fascia. This makes it easy to slip the plywood into the groove without the free edge hanging up on slight bows along the wall.

To vent the roof we drill trios of 3 in. holes, 3 in. apart. The center holes in each group are 4 ft. o. c. (bottom drawing at right). Our standard practice is to start the center hole in the first trio 10 in. from the beginning of the sheet. Drilled on this layout, the spacing between the holes is consistent from sheet to sheet. To keep the bugs out, we staple insect screen over the holes on the concealed side of the plywood.

The inboard edges of the soffits are affixed to nailers with hand-driven 8d hot-dipped galvanized nails. I locate the bottom edge of the nailer by first leveling across from the bottom of the fascia to the wall. I mark this

point, and measure up from it the distance from the bottom of the fascia to the top of the groove. Measuring down from the top plate of the wall to this mark gives me a constant reference point for positioning the nailer. It's a good idea to put building paper on this part of the wall before installing the nailer. (If the wall depends on plywood for shear resistance, it must go on before the nailer.) I let the paper hang down below the nailer far enough so that the siding or stucco crew can tuck their paper under it. If there are openings above the nailer between the stud bays and the soffit, I draft stop them with pieces of plywood.

With this system down pat, my crew can run a substantial amount of soffit in a day's work. The only limiting factor seems to be the time involved in setting up the scaffolding for the predominantly two-story houses that we build. □

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