Building Cornice Returns

Period details add an elegant touch

by Gordon Dixon

Here in northern Vermont, many homebuyers are searching for the farmhouse look — typically the simplified Greek Revival house common in this area. Most of these houses were built in the second half of the 19th century. Many require extensive renovation, and they rarely have the kind of open floor plans that most buyers are looking for. Our company builds spec and custom homes that mimic these Vermont houses on the exterior, but have more modern floor plans inside.

Prominent features of the style are the wide frieze and corner boards, and, at the top of the corner boards, the cornice returns — the small projecting boxes where the eaves moldings turn the corner at the gable end. The simplest version of the cornice return, and one we build often, uses all flat stock. It consists of a finish fascia board, a narrow buildup strip, and "poor man's cove" — flat stock that we bevel and use instead of crown molding, as did many Vermont builders before us (see Figure 1). One big advantage of using flat stock instead of crown for this detail is that it allows us to turn the eaves molding up the rake without having to worry about the crown profile changing. With flat stock, we just rip the eaves piece to match and cut the compound angle on our sliding miter saw.

On a recent job, and the one featured here, we were called in late in the game to do all the exterior work — windows, siding, and trim — on an 8,000-square-foot house. The trim was fairly elaborate Greek Revival. The architect copied some of the details from a beautiful 1860s house that sits in the village of Moscow, Vt. The drawings showed the traditional cornice — a wide ogee crown

Figure 1. A simplified Greek Revival style cornice treatment uses flat stock with beveled edges — "poor man's cove" — instead of a crown molding. Using flat stock makes it easy to turn the corner where the eaves meets the rake.

Cornice Details

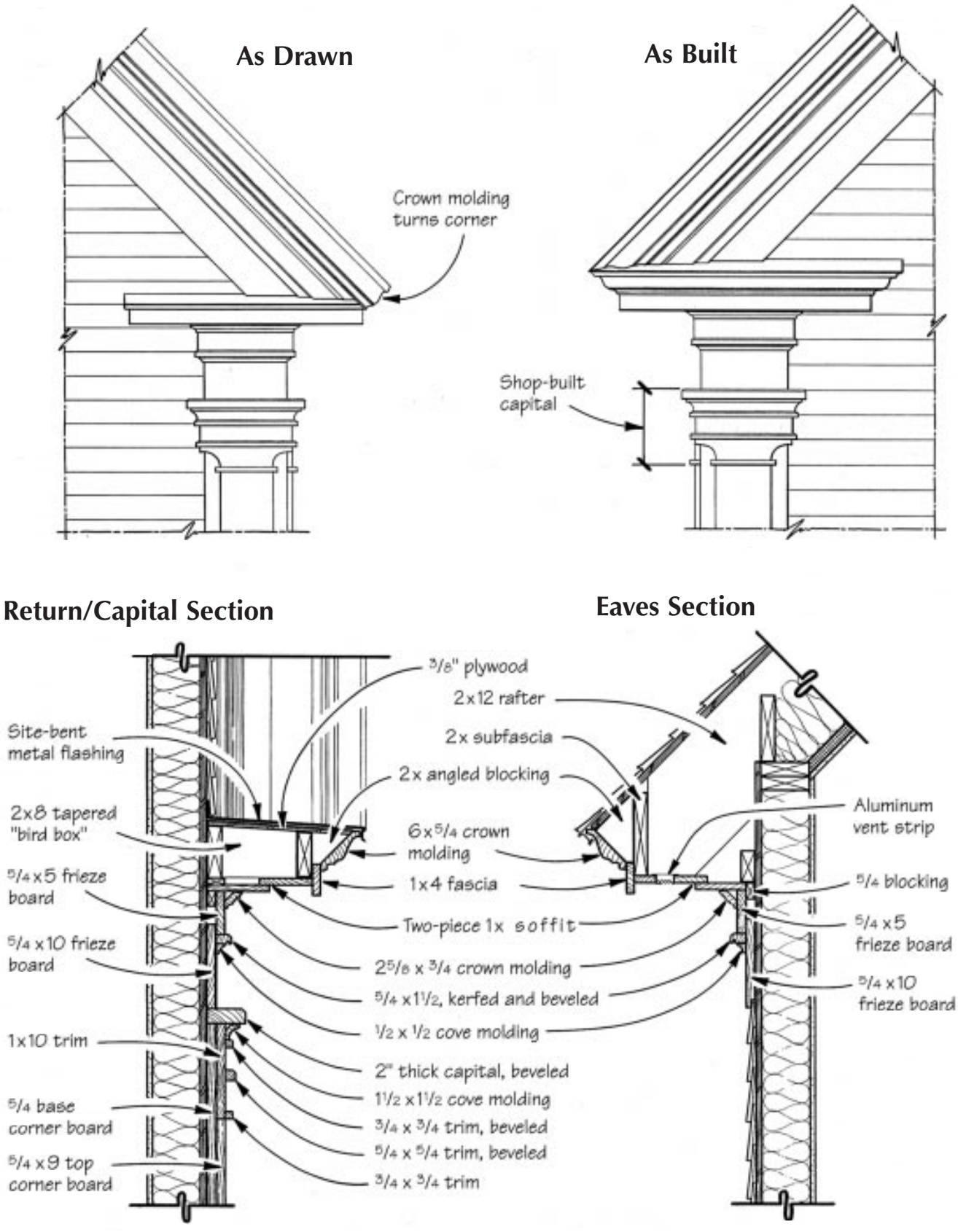

Figure 2. As drawn, the cornice detail would have required two crown molding profiles in order to execute a crisp corner joint (top left). Instead, the author used the more common eaves return, which uses only one crown profile (top right). Except for that change, the details shown are replicas of an 1860s house in Moscow, Vt.

running along the eaves and turning up the rake.

By the time we came on the job, the former GC had already ordered all the materials we would need. On our first day, two tractor-trailers pulled up filled with beautiful clear red cedar for the trim work. There was square-edge stock in several sizes, and a variety of moldings. We sorted the material to size up what we had and found we only had one size of crown molding. I realized that the cornice detail wouldn't work as drawn with only one crown profile for the fascia — unless we fudged the corner where the eaves turns up the rake.

I discussed this with the designer and owner and we decided to modify the traditional Greek Revival detail rather than fudging and ending up with a sloppy corner joint. Instead, we would bring the eaves crown molding around the corner, wrapping the cornice return with standard 90-degree cuts (Figure 2). The rake crown would then follow the rake frieze buildup and die on the roof of the cornice return. This detail is common on many new traditional-style houses, and can be built with off-the-shelf crown from the lumberyard.

Making Mockups

I started this job the same way I do any complicated exterior trim job — by completely mocking up one corner, including the soffit, the frieze, the capital details, and the "bird box" (the local term for the cornice return). We used short lengths of material for the mockups, substituting pine wherever we could. The idea was to work out all the details, including how much of each molding or lumber size we would need, what we would need to rip, and any pieces we would have to fabricate (like the small beveled pieces on the capital). This also gave us the chance to fine-tune the compound angles we would need to cut where the rake frieze lands on top of the return. Once we established the exact angle for each of these cuts, we cut a sample piece of stock, labeled it, drilled a hole in it, and put it on a leather belt we call the "dog collar." Then every time we got to a new corner, the guy on the saw could find the angle from the sample piece and make the cut quickly and confidently. There were ten cornice returns on the house, and we kept the same guy on the miter saw the whole time. Working out the details on the mockup saved us an enormous amount of time later.

I subbed out the capitals to our cabinetmaker. I figured he could handle the radius work and all the small buildup pieces better in the shop than we could. He preassembled the capitals and back-primed them so they were ready to go up. When we got to that stage later, installation was a breeze.

Figure 3. Angled blocks fastened with galvanized screws support the crown on the returns and up the rake (top). A plywood lid caps the return (left).

Bird Boxes

Our first task was laying out the subfascia and building the bird boxes. We used 2x8 stock, which we tapered slightly to provide a slope on top (Figure 3). We added angled blocks to support the crown and capped the boxes with 3/8-inch plywood lids. We attached the blocks with construction adhesive and two screws — one into the 2-by bird box stock and one down through the plywood lid. We also ran these blocks along the eaves and up the rake. When the blocks were in place, we cut back the plywood roof sheathing, which the framers had left hanging over.

Figure 4. Eaves membrane protects the finished returns (above) until metal flashing is installed (right).

Figure 5. The finished return and the completed house. Note how the cornice details on the dormer have been scaled down.

Once the bird boxes were in place, we ran all the horizontal trim along the eaves. To protect the returns until the roofer came, we covered the plywood lids with Ice & Water Shield (Figure 4). The roofer bent permanent flashings out of the same metal as the standing seam roof. After these were installed, we were able to run the trim up the gable ends.

Durable Details

We used stainless steel nails throughout. We shot the smaller trim pieces in place with our Senco finish nailer. The larger pieces were first tacked with the finish gun, then nailed with hand-driven ring-shank nails. All the stock was back-primed, and some of it was primed on all four sides. Back-priming is a good idea, and we always do it, but the paint is definitely hard on saw blades.

A job like this only comes along every few years — where we have the chance to work with premium materials and clients who understand the time it takes to execute the kind of details the plans call for. It took our crew of four about six weeks to run the exterior trim (Figure 5). Most of the first week was spent making mockups, prepping material, and doing layout. But the up-front head-scratching time kept us on schedule. Once we had figured out what we had to do, we picked up speed as we went along, and finished our job on schedule.

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