

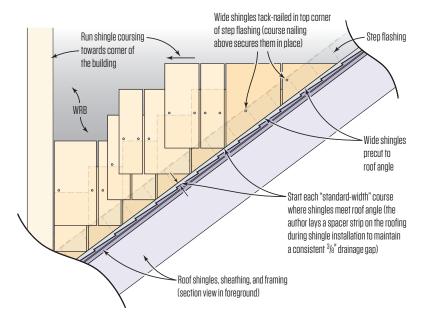


## When you're installing cedar shingles on a wall over a gable roof, how do you detail the courses to keep the shingles at a consistent angle off the wall?

Chris Yerkes, a cedar-shingle installer certified by the Cedar Shake and Shingle Bureau (CSSB), and owner of Cedarworks, in Brewster, Mass., responds: This is a great question to ask, because I've seen many installers get this detail wrong. If not done properly, the angle of the shingles off the wall will be inconsistent and the shingled siding won't shed water properly.

The key is letting each course of shingles continue up the angle of the roof until it dies out completely. Each course then runs in the opposite direction all the way over to the side of the building. Where the shingles are cut to the angle of the gable roof, they should get progressively shorter as the course

## Cedar Shingling Wall-to-Gable-Roof Intersection



Begin courses at the roof with angled shingles (cut on the ground). Maintain an ample drainage gap between the wall shingles and the roofing material.

continues up the roof, while the tops of the shingles run level across the wall.

I usually start each course at the point where the course meets the roof angle, and work up the roof and back toward the side of the building from there. We precut the angled shingles on the ground, using a bevel gauge on a table saw to ensure uniformity of the cut angles.

The cutting process is much easier if you save wide shingles to use for this detail. In a previous article ("Nailing Wide Shingles," *Q&A*, Oct/17), I mentioned that while I'm shingling a wall, I set aside any shingles more than 8 inches wide specifically for this purpose. Cutting the angled shingles from wides saves me from having to cut a bunch of smaller shingles for the angled sections. I will typically cut the angled shingles for a number of courses at one time to minimize my trips up and down the ladder.

Proper nail placement is a key for the angled shingles. I'm always careful not to nail too low or too close to the roof-to-wall intersection. To secure each angled shingle, I drive one staple (or shingle nail) at least 2 inches above the lower edge of the next shingle course and into the top corner of the step flashing.

Another key to having the roof drain effectively while making this detail look professional is to create a consistent gap between the roofing and the cedar shingle siding. We typically rip a furring strip to about  $^3/s$  inch and use it as a shingle ledger above the roofing material. This strip lays flat on top of the roofing surface, and the shingles rest on the strip as they are nailed in.

We remove the strip after we've finished installing the shingles, and the gap that's left creates a neat and even drainage channel between the roof and the siding. This gap keeps the butt ends of the shingles from wicking water, which would greatly reduce the longevity of the siding.

A quick and easy way to make a ledger strip for along the roof is with a length of standard beveled clapboard. The bottom edge of the clapboard is typically around <sup>3</sup>/<sub>8</sub> inch thick, so we just lay the scrap on the roof with the thick edge against the wall. Then we install the angled shingles on top of the clapboard, removing it when we're done to leave an even drainage gap.

## What are the concerns about VOC emissions from exterior plywood and OSB?

Clayton DeKorne, chief editor of *JLC*, responds: VOC emissions are pretty much a nonissue for exterior-grade plywood and OSB. Exterior-rated structural panels use moisture-resistant phenolic-formaldehyde resins in the adhesives (this is also true for wood I-joists, LVL, glulams, cross-laminated timber, and many other types of engineered lumber). These adhesives do not off-gas substantially, nor do they add much of anything to the levels of indoor air contaminants.

The emissions from exterior-rated composite wood products are quite different from the off-gassing typically experienced from more volatile urea-formaldehyde resins that bind together interior-rated panels, such as the particle board and MDF used in some cabinetry, as well as laminated flooring. But even that is changing quickly.

Effective June 1, 2018, all composite wood products must meet formaldehyde emissions standards set by the California Air Resource Board (CARB) Air Toxic Control Measure (ATCM) for Composite Wood Products. And effective March 22, 2019, these products must meet a national formaldehyde standard, dubbed TSCA Title VI, put forward by the Environmental Protection Agency, which mirrors the CARB standards.

These standards apply only to hardwood plywood (veneer and composite-core panels), particleboard, medium-density fiberboard (MDF), and thin MDF. Structural engineered wood products manufactured for construction applications, including structural plywood, oriented strand board (OSB), wood I-joists, laminated veneer lumber, and glued-laminated timber, have always been exempt from regulation by both CARB and TSCA because they are made with low-emitting, moisture-resistant adhesives.

It's worth noting that the new EPA ruling that set formaldehyde limits effective in 2018 and 2019 applies only to the manufacturers of those panels. The regulation is intended to limit products in the supply chain. Installers of the panels cannot be penalized.