

gutter guards, while gutters without them tend to clog and overflow.

If the deck is new construction, any deck drainage system on the market will work. If the system is a retrofit, however, an under-joist system is usually the best option. That said, in a tough drainage environment, it might be worth the extra time and labor to install an over-joist membrane system on an existing deck, as Ciaraldi sometimes does.

Another key factor is the desired look of the ceiling below the deck, and what you want to have in it. Most of the systems that install under the joists are finished ceiling panels, saving money on additional finish work but making it more difficult to add wiring and fixtures. Over-the-joist systems sit high up in the bays, letting you add whatever ceiling finish and electrical systems you want, knowing they will stay dry.

Closely related to the ceiling is the purpose of the space below. If it's an outdoor living space, a leaky ceiling panel might be OK once in a while, since most systems allow individual panels to be taken down to clear debris and blockages. To create a finished, indoor room, however, best practices must be followed. □

Asa Christiana is a contributing editor and freelance writer in Portland, Ore.

A CATEGORY OF ITS OWN

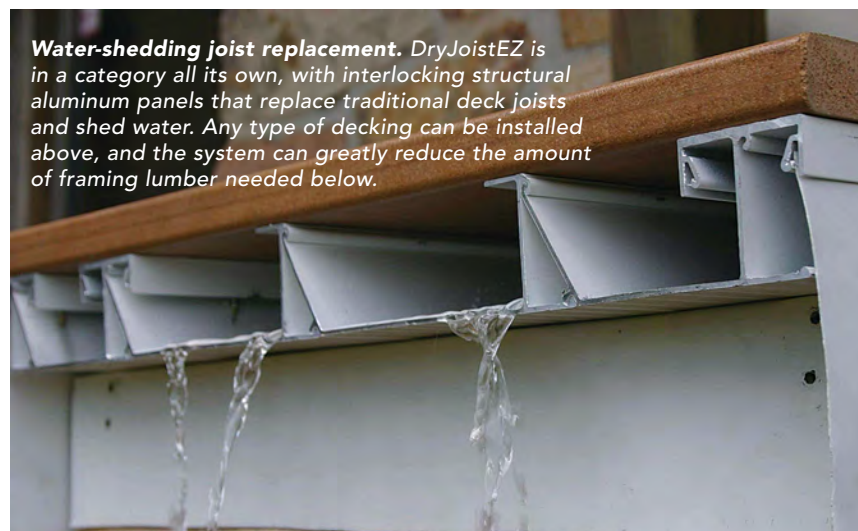
STRUCTURAL DRAINAGE

PROS

- Eliminates a large amount of traditional framing
- Protects the limited framing below
- Provides ceiling finish and drainage
- Works with any decking material

CONS

- Relies on framing for slope
- Difficult to retrofit



Water-shedding joist replacement. DryJoistEZ is in a category all its own, with interlocking structural aluminum panels that replace traditional deck joists and shed water. Any type of decking can be installed above, and the system can greatly reduce the amount of framing lumber needed below.

BEST PRACTICES FOR LESS Site-built systems

The raw materials for an over-the-framing deck drainage system are widely available, at a fraction of the cost of the commercial products, which is why a number of skilled deck builders prefer a DIY approach.

Fine Homebuilding editorial advisor Mike Guertin outlined his site-built system in *FHB* #220, and it's included in a video at FineHomebuilding.com/magazine. Guertin and others base their systems on EPDM rubber, a roofing material used on flat and low-slope roofs and also as pond liner. It's available from roofing-supply

houses in 0.45-in. and 0.60-in. thicknesses, in 10-ft.- or 20-ft.-wide rolls 50 ft. to 100 ft. long. Guertin used the thicker material at first, but uses 0.45-in. EPDM now, which is easier to handle but just as durable in this context, he believes.

For curvy decks with irregular framing and decking, deck builder Jason Russell creates a site-built system much like Guertin's, with EPDM cut in long, fan-shaped strips that are draped between joists to create sloped troughs, which lead in turn to a standard rain gutter installed near the rim joist. To seal the

overlaps on top of each joist, Russell applies self-adhesive G-Tape flashing, warning that it's important to use a product that seals around screws and is compatible with EPDM.

Builder John Lea uses two types of site-built systems: the draped approach when rainfall and debris will be severe, and a flat system when it won't. The flat system is created by attaching a layer of plywood to the framing, followed by a wide, unbroken sheet of EPDM, and then sleepers that the deck boards are screwed to.

While RainEscape rep Dave Kile acknowledges that his product is more costly than the basic materials for a site-built approach, he points to RainEscape's 20-year warranty and ease of installation. "A two-person crew with no experience can install 70 sq. ft. per hour, and get twice as fast over time," he says. —A.C.

Go it alone. Skilled builders can save a lot of money installing a site-built membrane. This approach can also be easily tailored for unique or unusual situations.

