Unnecessary Railings?

I'm an ICC-certified building official for several communities in northern Minnesota, and it appears to me that the existing railing system in the article "Upgrading a Deck" (Jan/Feb 2016) would not be required to be code compliant or even required. The 2015 MN State Building Code, which incorporates the 2012 IRC, Sec. R3121.1, requires guardrails be installed only when the deck surface exceeds 30 inches above grade. As this deck's stair system has only three risers, I estimate that the deck surface elevation is no more than about 24 inches above grade. If I'm correct about the deck elevation, then the requirements for a 36-inch-high guardrail with a 4-inch-maximum opening between balusters are moot. The contractor or owners could install anything or nothing at all, whatever their preference.

The purpose of my comment is not to lessen any code-safety requirements or call into question the author's skills or attention to detail. It's clear that Mr. Guertin takes pride in his craft, and his re-use of materials and economic consideration for his customers are to be commended. But I would not want people to read this article and conclude that a code-compliant railing is required per the 2012 IRC.

Jim Rich
Duluth, Minn.

Ed. note: Please read Mike Guertin's article, "Railings for Grade-Level Decks," on page 20 for more on this subject.

Advice on Fighting Rot and Corrosion

The failure of the long-term structural adequacy of a deck can be attributed to bad workmanship, design, unsuitable materials, deterioration, and lack of proper maintenance of the structure. These issues are not all addressed in the IRC and much is left to the knowledge and expertise of the builder.

As a builder well past the age of retirement who has seen and repaired structural degradation in buildings and decks over many years, I think that all timber that is subject to moisture and exposure to the elements should be further protected with a paint coating, whether it has been preservative-treated or not. Opaque paint preserves and enhances the appearance of timber, and the lifespan of a painted finish is longer than that of transparent or translucent stain finishes. Before painting, I ease the edges with a ¼-inch-diameter roundover bit mounted in a laminate trimmer or router, which reduces the surface tension of the paint on opposing surfaces. I recommend priming all edges and faces with an oil-based primer, and finishing with two coats of a water-based high-gloss acrylic exterior paint before cutting to length and installing. Be especially careful to coat all end cuts and butt joints with an oil-based primer or—better still—a bituminous coating to seal out moisture. I also recommend painting the back face of the deck ledger with the bituminous coating as well, as the ledger flashing alone will not prevent the ingress of moisture and dust behind the ledger.

Painting protects wood from the effects of sun and rain, but it also creates a barrier that prevents the corrosion that happens when the chemicals in pressure-treated timber come in contact with joist hangers and other metal connectors. When a metal connector must come in contact with treated raw lumber, then I recommend placing a piece of self-adhering (SAF) or damp proof course (DPC) flashing paper between the lumber and the connector. Metal hardware should be hot-dip galvanized, of course, and I also recommend painting the connectors after installation. I also coat all fasteners with a paste that I make from melted beeswax and pure turpentine. Not only does it provide added protection, but the coating makes the fastener easier to install. Finally, framing should be sloped so that surfaces can always drain freely away to the outer edge of a deck. ❖

Dave Barrowcliffe
(from online comments)

We want your two cents.
E-mail us at **prodeck@hanleywood.com** or mail letters to: Professional Deck Builder, 186 Allen Brook Lane, Williston, VT 05495