

LETTERS

Readers Comment on “Code-Compliant Guardrail Posts” (May/June 2011)

Kudos From Virginia

Congrats to you and Mike Guertin for taking the guardrail-post subject straight on. The guardrail-post article and companion Q&A should help prevent serious deck-related injuries and deaths for decades to come. Mike did a very good job of explaining how the Virginia Tech load test requirements were no different from the load tests required for wood-plastic composites used in guardrail systems per ASTM D7032.

Frank Woeste, Ph.D., P.E.
Professor Emeritus, Virginia Tech

Carriage Bolts Don't Fly

The cover story of the recent issue is very informative, though there is one major issue. Several photos show the author using carriage bolts to connect the Simpson DTT2Z. This is not an acceptable means of attachment for several reasons.

The *National Design Specification for Wood Construction* (NDS) does not recognize carriage bolts, and no performance values or loads are given. Therefore, it is not acceptable to use carriage bolts in wood-to-wood connections. Additionally, the NDS requires a metal plate or washer between the bolt head and the wood to prevent localized crushing of the wood, which defeats the purpose of a carriage bolt. Carriage bolts can strip out the surrounding wood, especially once the pressure-treated lumber dries out, so tightening or re-tightening the bolts may be impossible. Deck builders should re-tighten all bolted connections once the pressure-treated wood has had a chance to dry, or recommend the homeowner do so. Simpson Strong-Tie specifies machine bolts in its details, therefore that is what is required for use with its product. Furthermore,

carriage bolts have not been tested in this application.

Also, the author recommends in several of his own details to cross-bolt through the posts using an offset of only 1/2 inch for 1/2-inch bolts. This does not meet the NDS standard for bolt spacing, which is a minimum of three times the bolt diameter, or in this case, 1 1/2 inches.

Robert H. Gould
Senior Structural Engineer, Emanuel Engineering
Stratham, N.H.

Hardware for Stair Posts

Mike Guertin's article on code-compliant posts did a fine job of detailing the problem and provided great solutions. I noticed, however, that stairs were not addressed. Code requires that stair rail posts meet the same 200-pound load standard as other posts. The engineering testing for EZ Stairs hardware revealed that rail posts attached to our brackets will withstand up to 500 pounds of lateral thrust. This application of our rail-post support is an inexpensive solution that works equally well for housed and conventional cut stringers, as well as for stairs built using our hardware.

Gordon T. Walker
EZ Stairs

Advocates Blocking and 6x6 Posts

I was a little disappointed to find no mention of 6x6 posts in the article on post connections. I like to use 6x6s because they look more to scale on large decks and are stronger than 4x4s.

Also, in my view, exterior post mounting gives the appearance that the deck builder doesn't know what he is doing. It looks like he built the deck and forgot to install the posts until he was done.

Finally, I pressure-block all my posts inside the rim. I can see the need for metal connectors if the posts have to be mounted on the outside of a rim, but I can't see where they offer any more strength if a post is properly pressure-blocked inside the rim. Plus, bolt holes are penetrations that weaken the wood's integrity and allow water into the wood. I think we should make railings as safe as possible, but not at the expense of shortening the life of the wood or unnecessarily lightening the pocketbooks of our customers.

Bob Simonson
Sammamish, Wash.

We want your two cents.

Email us at prodeck@hanleywood.com or mail letters to: Professional Deck Builder, 186 Allen Brook Lane, Williston, VT 05495

How do your practices and preferences stack up against those of other deck builders?

Answer our Survey and Quick Vote at deckmagazine.com

The image shows a screenshot of a web survey titled "deck builder online". The survey is for "Monthly Survey July 2011". The first question is "Are you satisfied with the warranty service you've received from decking manufacturers?". There is a button labeled "View Past Surveys". Below this is a "QUICK VOTE" section with the question "Have you ever made a decking warranty claim?". There is a button labeled "Vote".