

Another Deck Failure

I've been collecting every news account of a deck collapse that I can find since about 1998, and I read recently about one in New Albany, Ind., that was captured on video (*Wave3 News*, wave3.com/story/24805209/family-hopes-deck-collapse-video-will-educate-about-potential-deck-dangers). It also prompted a member of the victims' family, Jeremy Wilt, to post his own "deck collapse prevention" video, at youtube.com/watch?v=SvCXTyX-Q4k.

In the news story, NADRA is cited as saying that "the number of aging and failing decks has been increasing at an alarming rate." While the story also includes a link to a useful NADRA deck safety checklist (nadra.org/DSM_checklist2012.pdf), I'm concerned about the negative message that NADRA seems to be sending with this rather alarming statement.

Any professional viewing the video will recognize that the deck in question was guaranteed to fail, thanks to nailed beam-to-post connections and other details that have not been allowed by building codes since 2000. This deck was clearly

not built by a deck professional to meet any code, nor was it likely to have been properly inspected, if at all.

According to my research, deck failures aren't occurring at an "alarming rate," but are in fact relatively rare, fewer than 40 occurrences per year in the U.S. My heartfelt sympathy goes out to the innocent victims of this collapse, but this is an example of a system of codes and inspections that has failed, not an indictment of the deck-building industry.

To prevent this unfortunate scenario from recurring, NADRA—and all professional deck builders—should highly encourage proper inspection of existing structures, and code-compliant construction of new decks, not just during the month of May, which is NADRA's Deck Safety Month, but year round. We all need to do more to help get the word to homeowners to check their deck, and to push each other to be better in all our business practices.

Kim Katwijk
Olympia, Wash.

WordPress Websites

The article on responsive website design ["Get Responsive With Your Website," online only, at deckmagazine.com/computers/get-responsive-with-your-website_o.aspx] suggests that professional help is needed to make your website work on various devices, such as desktops and smartphones.

I have a WordPress site that I put together myself, without any help from a website designer or SEO magician. I worked from a free template, though I do pay a little extra for ad-free pages and for a package that gives me different fonts, backgrounds, and more. I post "Job Profiles" and other stories to my WordPress blog and have set up the page carefully with keywords and auto robot text (all under "Tools").

Another free tool in the WordPress platform allows you to optimize your site for mobile devices. Mobile searchers—whether they are on an iPad or an Android device—love my site,

and I have pictures of jobs rotate as headers that are tagged too. For about \$160 or so a year, my site appears as one of the top listings organically in Google—my tile-deck page receives ranking as the top or close to it on all search engines.

The key to my success is having a clean site without typographical errors and posting lots of pictures of what I do accompanied by clear descriptions of each photo. My site also has a "contact me now" VIP box, so I get emails on my smartphone; when I receive one, I typically call the client within 30 minutes. I keep thinking I should quit being a contractor and start doing websites on WordPress for contractors ... maybe I'd make more money.

Bill Leys
centralcoastwaterproofing.com
Arroyo Grande, Calif.

Send Us Your Tips

We want your best deck-building tips. We're partnering with DeWalt to give away a power tool each issue to the reader who sends the best tip to prodeck@hanleywood.com. The prize for the July/August 2014 issue is a 20-volt cordless oscillating multi-tool kit. So, write up those tips. Don't sweat the grammar or the spelling—that's what editors get paid for. Take a photo (your camera's best setting, please), or send a sketch on the back of a napkin.



Connecting Posts to Shallow Joists

Instead of relying on hardware to make the connection between guardrail posts and shallow joists (see *Question and Answer*, March 2014), I would take a common-sense approach similar to drawing C, which shows the post through-bolted to doubled 2x4 joists. Rather than through-bolting from the sides, though, I would install a 6-inch-long 4x4 block between the joists and behind the 4x4 post, then fasten the post to the block with a single 1/2-inch by 10-inch bolt with fender washers and nuts to lock it into a solid L shape. Then I'd fasten the assembly to the framing with three 3 1/2-inch deck screws on each side of the 2x4s in a staggered pattern, reinforcing the connection with construction adhesive. The drawing also doesn't show a rim joist, which could also be worked into the equation for added strength. Lots of hardware is not always the answer.

Doug Woodside

decksandpatiocovers.com

from online comments

Paul Bennett responds: This solution is similar to one that I contemplated when presented with this problem, and is one that I might have imple-

mented as a carpenter. By using a through-bolt into blocking, you have eliminated the end-grain considerations that might be created by lag-bolting into the 4x4—this is good thinking. But the fundamental problem with your solution—and with the similar one I contemplated—is that the 2x4s will still likely split along their length, making the connection unstable. Although calculations would say otherwise, your detail may work for a time, but given how severely wood dries, cracks, and rots in many climates, I don't think it would work for long. This is the kind of thing I see leading to injuries as a deck ages. It's not possible to walk under a rooftop deck like the one referred to in the original question (remember, limited clearance is what prompted the need for shallow joists in the first place) and easily inspect for shrinkage cracks or decay in the joists—especially at the end of the joist with screws in it—that will make this post unstable. Calculations aside, this is reason enough to not do it this way.

Having worked as both a carpenter and an engineer, I can appreciate your comment about hardware. However, there is a reason engineers often default to hardware. By specifying a \$30 piece of hardware, we are relying on something that has been tested and has published load values. The \$30 spent in the field saves \$100s in engineering, since we don't have to do the math.

Cooked Decking

I have noticed that reflected light from windows with low-E glass seems to have caused areas of excessive fading on the composite decking of several decks in my area. And currently, I routinely maintain a treated-wood deck that will not hold a coating because of—I think—extreme heat that's due to light bouncing off glass on two opposing walls. One of the walls is at the rear of the house and is composed of a bank of sliding glass doors leading out onto the deck. The opposing "wall" is the deck railing, which has glass-panel balusters. For all intents and purposes, at certain times of the day the deck surface becomes a microwave oven, and the coating I apply evaporates or is absorbed, and seems to get cooked off the surface of the decking in a matter of months.

I've spoken with a window distributor, who says that the problem is an unintended consequence of low-E glass. Has anyone else encountered this problem or heard of light reflectivity creating issues like this?

Jim Grant

San Diego, Calif.

Reflected light has caused problems with vinyl siding, so it's not surprising to hear that plastic decking can be affected too. Thermal distortion—the term used by the vinyl-siding industry—happens when temperatures exceed the 165°F point where the PVC substrate used to manufacture most vinyl siding starts to soften and melt. Insulated glass can develop a concavity that will actually focus reflected light, and it's not unusual to see temperatures exceeding 200°F in some of these sunspots (see "Low-E Windows Blamed for Melted Vinyl Siding," JLC; jlconline.com/leadsafe-practices/jlc-report-may-2010_2.aspx).

There's no question that windows can dramatically raise the temperature on decking, but whether or not this is causing the composite decking to fade prematurely and the coating to "cook" off the surface of your client's treated-wood deck are good questions for the manufacturers of the decking and the coating.

I am interested to hear from other readers who have had these experiences with overheated decks. Send email to awormer@hanleywood.com or post on the forums at forums.deckmagazine.com. —The Editor ❖

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