## IN THE NEWS Scanning for ideas

## Nailing down disasters

Hurricanes and earthquakes cause billions of dollars in damage, much of it to homes and small buildings. For wood structures, damages due to these natural disasters could be reduced by using HurriQuake nails from **Stanley-Bostitch**, East Greenwich, R.I. (*bostitch.com*). The nails are made of carbon steel, giving them a bend yield of over 100,000 psi. Cost of using the nails on a 2,000-sq-ft house is about \$15 more than using conventional nails, says Bostitch.

In hurricanes, most of the damage to wooden structures is from high winds and the vacuums they create. The new nails have heads that are 25% larger for more holding power and raised rings on the shank for fewer withdrawal failures. These features let the nails resist forces of up to 271 lb/ft² (depending on nail pattern and shank diameter). The nails are rated for hurricane winds and gusts to 170 mph.

In earthquakes, the danger is from shear forces when the ground shakes and structures vibrate. To combat this, Hurri-Quake nails are smoother for more shear strength. The shank's upper portion is also shaped to fill in voids created by the reinforcing rings in the top of the nail hole. The company estimates that this lets the nail withstand 50% greater shear forces than conventional sheathing nails.

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