

# COPPER TOP:

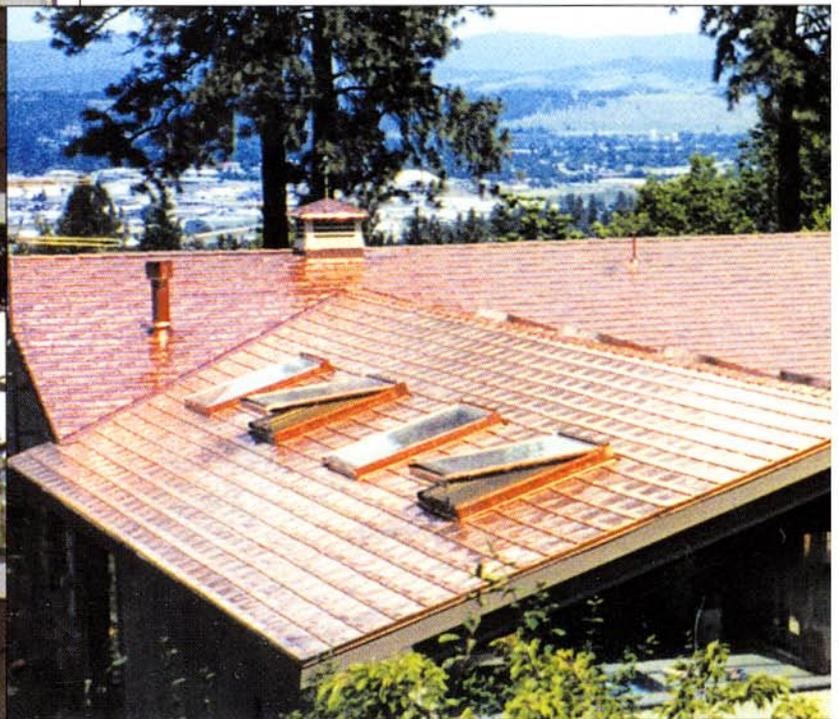
By Linn Parish  
Of the Journal of Business

**S**hiny as a new penny at first and as green as the Statue of Liberty after a number of years, copper roofing is an eye-catching and enduring way to top off an elegant abode.

“The copper is top-of-the-line stuff,” says Joe Zappone, owner of Zappone Manufacturing Inc., a Spokane company that makes copper

**At left, copper shingles accent a witch's hat feature on a home north of Spokane. At right, copper caps an older home on Spokane's South Hill. Below, a rancher on Spokane's South Hill sports a new roof that was installed last summer.**

-Photos courtesy of Zappone Manufacturing Inc.



# HOMEOWNERS INSTALLING SUCH HIGH-END ROOF PRODUCTS GET THEIR PENNIES' WORTH

roof shingles. "It goes with any style of house—brick, Tudor, French provincial, anything."

Far from common, copper roofs can be found on a relatively small number of homes in the Spokane area, typically in prestigious neighborhoods of houses with values of \$300,000 and more.

Such a roof costs \$6 to \$10 per square foot to buy and install, which is more expensive than most other roofing materials, Zappone says. Other types of metal roofs, such as those made of steel and aluminum, typically cost \$3 to \$4 a square foot, and common composition roofs cost about \$1.50 a square foot, he says, adding that only some high-end tiles are more expensive than copper.

Dennis Kurtz, who manages the Spokane branch of California-based Custom-Bilt Metals Inc., which makes and installs copper roof panels and other metal roofing products here, says, "You need the right individual wanting that exact look to spend money on copper."

While it's a specialty product that's more expensive than most other roofing materials, copper roofing has become less expensive to install over the last 10 to 15 years, and partly because of that now is being used more frequently, Kurtz says.

Copper panels made by Custom-Bilt Metals are a foot wide and are manufactured to the desired length—up to 24 feet—for

each job, Kurtz says. Previously, the company made panels of a uniform length, which meant installers had to cut and splice them together, which was much more labor intensive, he says.

Zappone's copper shingles are made in the same dimensions in which they've been made for years. Unlike Kurtz, Zappone

believes that demand for copper roofs, while steady, hasn't grown much over the years.

Both Zappone and Kurtz say copper roofing eliminates the need for roof warranties. Zappone Manufacturing and Custom-Bilt Metals guarantee that their products are 100 percent copper, which implies that the roof should never leak, even after hundreds of years.

"Copper does last forever," Kurtz says. "If a copper roof is going to leak, it's going leak in the first two months because it was improperly installed."

## The shades of copper

A copper roof will oxidize and start to turn different colors early on, though that process affects only its hue and doesn't harm its protective properties, Zappone says. A copper roof will start off with a bright copper sheen, then will turn a dark brown fairly quickly as the oxidation process begins. As it continues to corrode, the roof will turn various shades of bronze, gray, and green before forming a green



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# ROOFS

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patina, or crust, similar to that on the Statue of Liberty. That color should remain constant for many years thereafter.

Zappone says the length of time it takes for a roof to turn colors depends on several factors. Precipitation and humidity can speed up the process, as can air pollutants, he says. In Spokane, a roof usually will go through the oxidation process over 15 to 20 years, but Zappone shingles installed on a Northern California beachfront home turned green within a few weeks because of salt-water mist, he says. Conversely, one copper roof in Arizona has gone 30 years without completing the oxidation process due to arid conditions and a relatively low level of air pollution, he says.

It's possible to accelerate the oxidation by spraying special chemicals on a roof.

Such chemicals react with the copper and cause a green patina to develop within 24 hours.

A homeowner who wants to maintain the original, shiny copper look can do so by applying a lacquer to the roof. However, both Zappone and Kurtz strongly oppose the idea of lacquering a copper roof, because doing so adds maintenance to an otherwise maintenance-free product. Also, a lacquer wears off unevenly, and when that happens, the exposed parts of the roof turn colors while the rest of it keeps its original luster.

When a customer wants a roof to maintain a copper color, Kurtz says he'll sug-

gest a steel roof with copper penny paint rather than a lacquered copper roof.

Zappone says prospective customers often are concerned about what would happen if lightning struck a copper roof. While copper conducts electricity so well that it's used widely in electrical wiring, Zappone says a copper roof won't attract lightning and doesn't need to be grounded unless a home is situated in a particularly exposed spot, such as atop a

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—Joe Zappone, owner

Zappone Manufacturing Inc.

barren hill.

Also, Zappone says, copper roofing fares well in hailstorms. Large hailstones can dent copper shingles, but the metal always returns to its original form, he says.