



U.S. FIRE SPRINKLER REPORTER

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Rising 21 stories out of the desert soil, a scant few blocks from the Arizona State capitol, is the new Phoenix Municipal Building. It will be city hall for some 2.5 million resident of the "Copper State". The graceful concrete structure is not the only highrise in town, nor is it the highest, but is the first of Phoenix's major buildings to have a copper automatic fire sprinkler system."

Rick Weiting, CDA Regional Manager says that the Phoenix city hall is among the first of its kind—highrise commercial buildings—to use a copper sprinkler system, although, he hastens to add, such use of copper is gaining in popularity.

Weiting explains that while copper is used extensively in retrofit work, sprinkler systems for newly-constructed commercial highrises have traditionally been fabricated from steel pipe which is readily available and low in material cost. Unfortunately, he says, many contractors just *assume* that copper is too expensive for commercial buildings.

They assume wrong, maintains Gary Beyshau, president of Aero Automatic Sprinkler, Inc., the Phoenix-based company that designed and installed the Municipal Building's system. "The Phoenix city hall building has



**Contractor finds
copper system
saves more
than just
pennies**

*Photo: The
Phoenix
Municipal
Building under
construction.*

opened my mind to what can be an extremely cost-effective solution for many of my customers," says Beyshau. "It may not be the best solution for every situation—I don't think I would use it in a parking garage or a warehouse, for example, but where you've got many required bends or irregular patterns, or if you're tapping off the domestic water supply, then copper makes a lot of sense. I can certainly attest to the viability and advantages of using copper tube in sprinkler systems."

Beyshau says that the city hall project was a real learning experience for him and that, quite honestly, he kept on discovering more ways that the copper system saved him money by reducing labor costs. He has been installing copper systems for a number of years but the municipal building was his first highrise project to use the material.

It's a big project, too. The Phoenix Municipal Building will use some 26 miles of copper tube (about 32 tons) to feed 3,572 sprinkler heads.

According to Beyshau, one advantage to copper is that the material is cut and assembled right on the job where the installer encounters actual rather

than supposed conditions. This eliminates guesswork and time-consuming off-site fabrication and transportation.

Then, too, the material is fast and easy to install. Beyshau explains that using a T-drill and brazing technique reduces the number of fittings required, which saves time and money. For instance, one of Aero's top fitters single-handedly installed 96 sprinkler heads and more than a quarter-mile of copper tube in just 60 hours.

Not all of Aero's work crews were familiar with the copper brazing technique when the project started, however. Beyshau says that the Copper Development Associa-

tion provided training free of charge. Weiting says that the CDA would, in all probability, do the same for other contractors with projects similar to the Phoenix one.

When it came to revisions, Beyshau says that copper's soft, pliable nature again saved his company time and money. The city hall project had many revisions issued after the floors were roughed-in. "Our performance in revising these floors was far better than we anticipated," he says.

Beyshau claims that copper has many advantages in retrofit work. There are no bulky fittings so that copper systems easily fit tight spaces. Also, since copper is fast

and clean to install, it minimizes disruptions to building occupants, an important consideration for hotel and apartment building owners.

Weiting says that copper has been used in many major retrofit projects such as the Century City Towers, two, 40-story buildings in Los Angeles, and the Fox Towers, a 29-story structure in San Francisco.

Beyshau has recently been involved in a \$2,000,000 retrofit project for the Hilton "Point" resorts. The owners of these luxury resorts were in favor of using copper. "They wanted the best," Beyshau says, "and that's what they got." Y

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