



## UTAH MIDDLE SCHOOL ACHIEVES “VALUE ENGINEERING” WITH METAL-CLAD CABLE

In Logan, Utah, “TEC” Electric Company, answered the electrical contractor’s demand for “value engineering” with a \$30,000 labor savings on the wiring of a new middle school by installing metal-clad cable rather than its customary conduit-and-wire approach.

The Park City, Utah, School District had a tight budget for the construction of the Ecker Hill Middle School and the prime contractor was seeking cost-reduction technologies and approaches from the major subcontractors and everyone else on the project.

Park City, with a population of 4,500, lies 40 miles east of Salt Lake City in Utah’s Wasatch Mountain Range. The town’s literature describes it as “part party town, part bedroom community, part historic landmark, part ski center, and part cultural mecca.”

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Tourism is a growth business in this area, with its three ski areas. Park City will provide the venues for

several events of 2002 Winter Olympics, whose host community is Salt Lake City. Park City Ski Area is the largest in the state, with terrain so diverse that it is home to the U.S. Ski Team and to one of the longest beginner runs in the world. Deer Valley Resort and Wolf Mountain are the two other ski centers in town.

Inactive silver mines, a historic railroad, and Robert Redford’s Sundance Film Festival leaven the skiing for tourists who are not full-time athletes. High technology, clean manufacturing and a variety of retail and service businesses give the area a diversified, growing economy.

With this growing economy come population influxes and the need for schools and other public facilities, including Ecker Hill Middle School.

“By wide measure, the most significant electrical savings on the school was the use of metal-clad cable,” said Theo Thomson, president, “TEC” Electric.

His company reduced total electrical labor by seven to eight percent by using Type MC (metal-clad) cable from AFC Cable Systems.

“The flexible cable was also instrumental in our getting the contract,” Thomson said. “The general contractor wanted to use us because they knew our work and trusted us. But it was the MC cable that enabled us to meet the school district’s cost constraints.”

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**“This was our first major project with flexible factory-armored cable,” said Thomson.**

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They installed nearly 50,000 feet of the flexible, metal-clad cable for power and fire-alarm circuits throughout the school. Since the Type MC cable arrived at the job site pre-wired and ready to install, the electricians simply placed the 1,000-foot spools on racks and ran the



**Electricians ran the pre-wired MC cable through existing holes in the metal stud work.**

cable through existing holes in the metal stud work. In ceilings, they looped it through D rings and over hangers.

“Rigid conduit would have been especially slow at this site,” Thomson said, “because we would have had to punch holes, bend the conduit to fit and work it through the studs. With the flexible AFC cable, we didn’t even need to use bushings where we strung it through the studs.”

MC cable is a factory-tested assembly used for power, lighting, control, and signal circuits. It can be installed exposed or concealed, or in an approved raceway, and is one, two and three-hour through-penetration, fire wall rated by Underwriters Laboratories.

“TEC” Electric also used plenum-rated Red Fire Alarm/Control Cable™ (FACC) for the safety circuits. This MC cable is plenum rated for fire alarm wiring or remote control hook-up connecting the main fire alarm control panel with pull stations, smoke detectors and alarms. The red color-coding of the outer armor reduces costly installation errors in the field, simplifies inspection and helps prevent accidental disabling of fire security systems. It can be used for smoke

detectors, pull stations, bells, horns, whistles and fire control panels. It met the local codes in Park City and complies with NEC Articles 334, 725 and 760.

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“This was our first major project with flexible factory-armored cable,” said Thomson, “and we learned some installation lessons, such as how hard to tighten the cable when you connect it to the electrical boxes. Yet, we saved \$30,000, learning as we went. On future jobs, with this experience, the savings should only increase.”

## IMPORTANT!

**NEC 2002 - Article Number Changes For Type MC & Type AC Cables**

	<u>NEC 1999</u>	<u>NEC 2002</u>
Type MC	334	330
Type AC	333	320

*For these and other code change updates, visit us on the web at:*

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