

AFC FIELD REPORT: Metal-Clad Cable



THEATER CONTRACTOR GIVES AFC'S METAL-CLAD CABLE STANDING OVATION

A fast-track construction schedule plus building design and materials from the 1920's made pipe-and-wire "impossible" at Perry's Egyptian Theater and the David Eccles Conference Center, Ogden, Utah, says Bert Butters of Winward Electric, the electrical contractor.

The solution was 66,500 feet of various sizes of metal-clad (Type MC) cable manufactured by AFC Cable Systems, Inc., New Bedford, Massachusetts.

Thirty-five miles north of Salt Lake City International Airport, Ogden has transformed itself from an early 20th-

century rail hub into a modern business-meeting and vacation center. Three ski resorts and twenty-one golf courses offer year-round recreation.

The business and entertainment complex comprises a restored, 800-seat atmospheric theater built in 1924 and a new, two-story meeting center with ballrooms and conference rooms.

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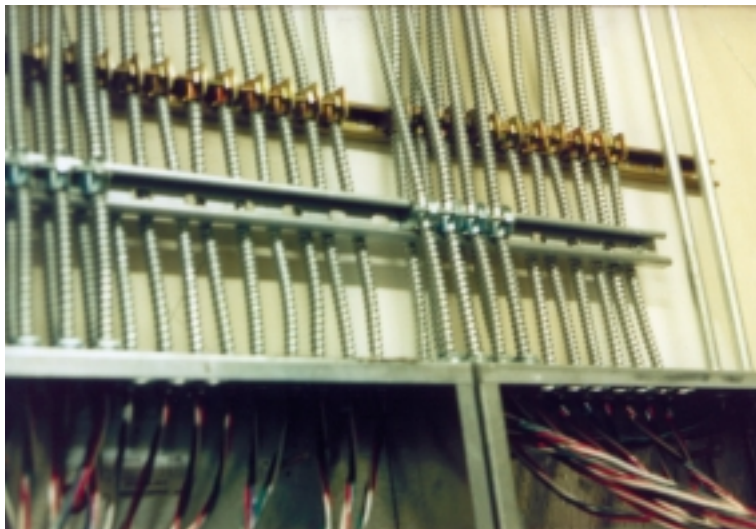
Perry's Theater includes inner and outer lobbies for receptions, a 6,000 square-foot auditorium for motion pic-

tures and live performances and an amphitheater that can accommodate more than 150 people with classroom seating. Its design was inspired by the discovery of King Tut's tomb and was one of the first atmospheric theaters in the nation. Atmospheric theaters entertain audiences by projecting dawn-sunset-midnight skyscapes on their domed ceilings in the ten to twelve minutes before a performance.

Described in 1924 as one of the nation's first fire-proof theaters, the structure is 12-inch poured concrete with plastered masonry tile and an art-deco facade with carved stone statues. The roof is supported by poured-in-

place concrete trusses with a black-iron ceiling and miniature I-beams.

The conference center has nearly 70,000 square feet of flexible meeting space on two floors. It includes three junior ballrooms, totaling nearly 6,000 square feet, on the first floor. On the second floor, the 14,000 square-foot grand ballroom can be divided into as many as five meeting rooms. Conference rooms, exhibit areas and banquet halls are acoustically designed for privacy, each with a self-contained sound system.



MC cable is designed for branch, feeder and service circuits.

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Winward Electric had to fish the metal-clad cable between the outer walls and interior red tiles to provide convenience power and lighting throughout the theater. “With pipe-and-wire, on-site electricians would have had to cut the thin-walled rigid conduit into three-foot sections,” Butters says. “We never would have met the nine-month deadline,” he says.

AFC Cable Systems’ MC cable is designed for branch, feeder and service circuits in multi-family residential, industrial and commercial buildings, including places of assembly (100 or more people). 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.

Wiring the theater was further complicated by an extensive custom lighting package designed to match the original cast bronze and alabaster fixtures. The general and electrical contractors had no flexibility in lighting-fixture specification or placement in the theater because of preservationists’ determination to replicate the original, 1924, opening-night design.

Contemporary fire protection in both the theater and conference center involved 16,500 feet of AFC Cable Systems’ Red Fire Alarm/Control Cable(tm) for a system of 700 devices (e.g., heat and smoke detectors, manual pull alarms, strobe flash warnings for the hearing-impaired, and speakers). Every device has its own dial-in address and a facility-wide intercom enables security officials to provide immediate warnings and escape instructions to guests and staff throughout the complex.

“The color-coded fire alarm/control cable went in more cleanly than anything I’ve done in a long time,” Butters

says. “I just laid out the system, pulled the cable off the reel, clipped it off and fished it in.” The red stripe provided easy identification of the vital circuits during construction, facilitates inspection and will simplify any rewiring needed in the future. It also helps prevent accidental disabling of the fire-security system.

AFC’s Red Fire Alarm/Control Cable (FACC) is a Type MC cable available in a variety of stocked configurations for power-limited and non-

power-limited applications. FACC is ideal for multiplexed addressable fire alarm systems and its flexible metal armor allows it to be fished into existing walls or other tight installations. FACC is fully plenum rated for use in ducts, plenums and other space used for environmental air.

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“One of my colleagues was, frankly, skeptical of armored cable when we began this job, but agreed there was insufficient time for pipe-and-wire,” Butters says. “Now, he’s a believer.”

“The bottom line for us,” he says, “is that the structures were in place and available for wiring March 1, 1996 and we completed our electrical contract on December 1, 1996. No alternative to flexible, pre-wired, metal-clad cable would have enabled us to meet that schedule in this environment.”

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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