Harnessed Energy:

Great Minds Think Alike at New Research Center

Center for Energy Sources Management (CERM) at the University of New Orleans.

Professors and entrepreneurs meet more often now in the corridors of the Center for Energy Resources Management, more commonly known as CERM, on the campus of the University of New Orleans. CERM is dedicated to research of all kinds relating to energy resources management.

CERM houses professors from many departments including chemistry, engineering, physics, and business. It also provides incubator space and support for start-up companies dedicated to refining energy use.

Within the walls of CERM, investigators spend their time looking at everything from the statistics of energy use to the way gas turbines are tested. The walls actually were erected long after the notion of CERM existed.

"The whole concept of the center just rolled into the building," says Gus Cantrell, director of capital planning and development at the University of New Orleans. He estimates the concept preceded the building by about 10 years.

"It was a very difficult building to plan," says Cantrell, "because of the diverse components, which include laboratories and offices." A conference center in the building occupies more than one-fifth of the 104,000 square-foot interior.

The 22,000 square-foot conference center takes up the first two floors of the CERM building. Officially named the Lindy Claiborne Boggs International Conference Center, the setting will be a place for academic conferences, industry and trade shows, research presentations, and business gatherings. A Hilton Garden Inn is slated for an adjacent site to offer lodging and meals for conference attendees.

Competition to get into the building with the status of a day-to-day resident including laboratory and office space was stiff, says Cantrell. "Some laboratories didn't make it." The excitement of being able to walk across the hall and bounce ideas off someone in a different discipline, or hear about a project that might be the next big thing, is irresistible to researchers. Many wanted to be part of the regular life of CERM.

Who did get in? The partial list of research institute occupants tells the tale of cutting-edge research. Among them are: Biotic Research, Canizaro Computer Center Research Laboratory, Center for Hazardous Assessment in Research and Technology, Center for Industrial Application of Electrical Power and Instrumentation, Electromagnetic and Fiber Optic Laboratory, Energy Conversion and Conservation Center, Freeport McMoran Center for Environmental Modeling, Freeport McMoran Geophysical Research Laboratory, Geographic Information Systems Laboratory, Gulf Coast Region Marine Technology Center, National Biodynamics Laboratory, Pontchatrain Institute, Real Estate Market Data Center, Schlieder Urban Waste Environmental Systems Center, and Tribology Laboratory.

If it sounds interesting, it is. Go to the CERM Web site (www.uno.edu/%7Ertp/CERM.htm) to link to information about the individual institutes listed above.

The portion of the construction of the CERM building for which The McDonnel Group was responsible was completed at a cost of $14.5 million. The McDonnel Group got the state contract because it was the low bidder. There were eight companies in contention. The bid from The McDonnel Group was just $40,000

lower, or 0.32 percent less, than the second lowest bidder, said Allan McDonnel, company president.

"It was the first major project we bid," says McDonnel, "and that made getting the contract to construct the CERM building particularly sweet." But there was "a kind of icing on the cake," too, he explains, because the second-lowest bidder was a former employer. It was very nice, he says, to be able to compete in the same league and win a contract.

The total investment in the CERM research facility is $20 million. The University sees CERM as something of a key player in the UNO Research and Technology Park, which focuses on biotechnology, energy, environmental research, geology, environmental research, geology, information technology, maritime technology, and technology transfer.

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Work on the CERM project contributed to more work for The McDonnel Group, thanks to the introduction it provided to Williams and Associates Architects, New Orleans. "We were the architects for the job," says Timothy Terrell, project architect for Williams and Associates. "We did it from beginning to end."

Terrell explains it was the first time Williams and Associates worked with The McDonnel Group. "They did such a fine job, we asked them to do Ripley's," he says, referring to the renovation of an existing building in the French Quarter to accommodate a Ripley's Believe It or Not.

"One of the most interesting parts of the design to work on the CERM project," says Terrell, "was the structure of the laboratories." The CERM building incorporates both wet and dry labs, and as the list of occupants indicates, the research uses are enormously varied.

The mixed exterior of the CERM building incorporates metal panels, precast concrete, conventional plaster, masonry, and ribbon window. It gives the building a signature look. The design aims to "offer some different textures" to the University of New Orleans, says Terrell.

"The structure brings added flavor and charm to a setting in which many of the buildings are similar and a bit staid," explains Terrell. "It has passive solar features, too."

"It's a very energy-conserving building," says Cantrell. Moreover, at five-stories tall, the building, with its distinctive exterior, is "one of the most distinguished on site," he says. "It has character, a crevasse here, shadow line there."

McDonnel believes the exterior gives the building "a techy look." He likes it, although he recalls it as "a really difficult skin to work on because of the coordination that was necessary when using so many different materials as components."

Coordination is a theme that resonates with Cantrell. He worked to bridge the way from the concept of CERM to the building that would house it. Flexibility was the key to success, he says. He wanted all interested parties to be able to weigh in with ideas on everything from how the building should be powered to which features should be incorporated.

Building bridges is a natural undertaking for Cantrell, who is a civil engineer by training. Besides his administrative duties, he teaches a senior design course at UNO. Cantrell recalls the way CERM began. "It started out as a kind of hodge-podge," he says, explaining the discussions about uses of the building that engaged professors and administrators from many disciplines. "I deliberately kept it flexible," he explains, "so that as it firmed up, the building could meet the needs of as many occupants as possible, and also so that the architects could make good suggestions about how to meet the widest range of requirements."

"The 'Center' is really just a theoretical entity," says Cantrell. But that vision "quickly evolved into a building" that is CERM. One way to look at the building is as the physical expression of the center concept. What happens in the CERM building—the exchanges, the informal meetings, and the serendipities—was already happening. But now it happens more often and more easily because the key players are closer together. Proximity enhances the potential energy and promise of CERM.

Cantrell admits that because The McDonnel Group was new and because it was his first time working with the firm, he had "some nervousness." All of it dissipated quickly. "We were really impressed with those guys," he says of The McDonnel Group. "They are really ahead of the curve." •