

Inside: PCI Convention / National Bridge Conference Preview

The Concrete Producer

October 2006

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Towering Achievement

Special Bonus:
A look at some
of our favorite
concrete
monuments.

High Concrete's Lyle
Bowman helped engineer the
precast concrete Lewis &
Clark Confluence Tower.

www.theconcreteproducer.com

BY RICK YELTON

On Sept. 23, 1806, members of the Corps of Discovery drifted on the Mississippi River past Camp DuBois, their former winter staging area. Historians tell us the members of the Lewis & Clark expedition were eager to reach St. Louis about 1 mile downstream and return to civilization after more than two and a half years of wilderness travel. For the members of the Corps, Camp DuBois had served its purpose, and it was

allowed to fall into disrepair, eventually to be reclaimed by the wilderness.

Two hundred years later, the abandoned camp has been reclaimed and has taken on an important role in preserving the memory of an important event in U.S. history. In September, history buffs met at the site and welcomed back a small flotilla of river travelers who had completed a two and half year trip on the same path of the Lewis

& Clark expedition. According to the organizer's master plan, the site was host to a musical tribute at the end of the two-year Bicentennial celebration.

While Ol' Man River might keep on flowing along, there's been a recent addition to the historic campground. Overlooking the recently constructed Illinois State Park stands the Lewis & Clark Confluence Tower. This 200-foot prestressed/precast structure now

The Confluence Tower was one of the most difficult projects in the 15-year career of Lyle Bowman, project coordinator for High Concrete.

not only creates a monument for the start of the trail of discovery, its supporters hope it will provide a much-needed lift to the economic future for the local area.

Around the country, producers are finding themselves developing a new market—commemorative structures. From carillons to observation towers to sculptures, concrete is preserving our deepest memories and important historical events. And for

those involved in the design, casting, and ownership of these memorable structures, it's big business.

Legacy tower

Hartford, Ill., may be a small river town, nestled between Alton and Edwardsville, but it has a big place in the history of our country many people almost forgot. Fortunately for this community of about

1000, Hartford Mayor William Moore is a history buff.

Driven by the traditional interstate rivalry between Illinois and Missouri, Moore worked hard to establish that the Lewis & Clark expedition actually started in his state. "It's true that the expedition refitted and pushed off from St. Charles (Mo.), but they actually wintered here prior to the start of the journey," Moore says with conviction.



Monument Builders

Durability and design flexibility make concrete a designer's best choice for memorial structures.

Hartford's economy has been static for several years. Spurred by the national interest from the Lewis & Clark anniversary, city leaders wanted to create a legacy structure to mark the historical event and to help jump-start their local economy by creating a tourism draw. Their plan was to draw from the thousands of visitors to the Gateway Arch National Park in St. Louis, about a 20-minute drive away.

Moore and other city leaders met several times to develop a plan to create a suitable memorial that would put Hartford on the tourist map. The tower design was actually one of four original ideas.

With the help of more than \$580,000 in grants from the State of Illinois, the project is now almost complete. The funding came from a special state initiative called

Opportunity Returns. The grants are designed to help spur local economies by providing seed money for special projects.

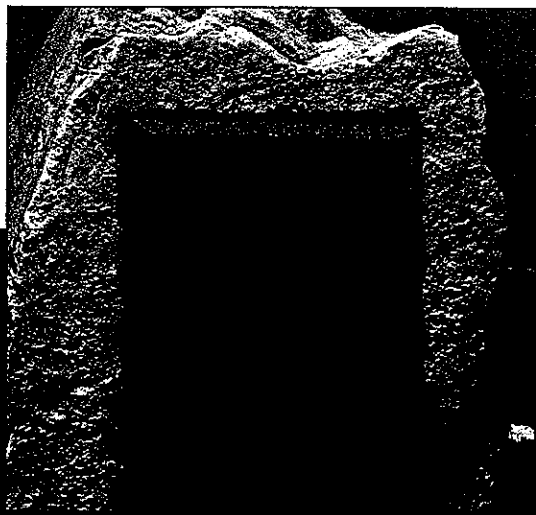
"Tourism plays a very significant role in the growth of our state's economy and, through Opportunity Returns, we're building our tourism assets in Southwest Illinois and throughout the state," Illinois Gov. Rod Blagojevich said in announcing the second portion of the funding grant. "The Lewis & Clark Confluence Tower will not only be a superb tribute to two of our nation's most adventurous explorers, but it will support the local economy by bringing countless new guests to the region that will support local businesses."

The Lewis & Clark Tower project consists of a 180-foot concrete tower, high enough to view the confluence of the Mississippi and

Missouri rivers to the west and the new interpretive center overlooking a replica of Camp DuBois.

The tower is equipped with both an elevator and staircase to allow visitors to reach the panoramic view. Located on 60 acres, the project will include fountains, a gift shop with restroom facilities, and picnic areas with direct access to the new Confluence Bike trail. With funding coming in spurts, Moore's group planned the project in three phases—the initial construction, the interior upgrade, and then the final grading that included the construction of a precast building.

Unfortunately for the city leaders, moving the project forward took a little longer than they had hoped. In fact, Lyle Bowman, the project coordinator for High



Below: The 200-foot Confluence Tower not only commemorates an important historical event. Local officials hope it will give the local economy a much-needed lift. Left: The tower commemorates the 200th anniversary of the Lewis & Clark Expedition.

PHOTOS: RICK YELTON

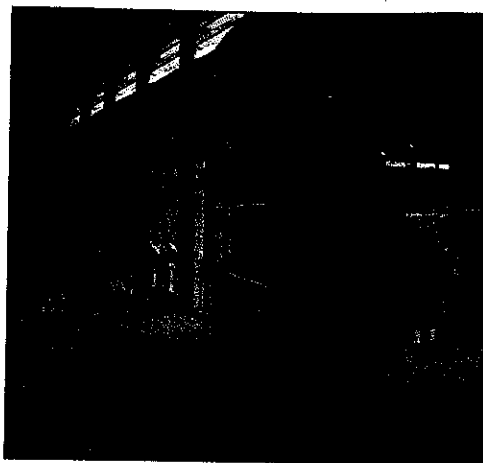
Interpretive Poured Concrete

When Overland Partners Architects of San Antonio designed the Corinth Civil War Interpretive Center in Mississippi, the team was tasked with creating a structure that not only commemorated the battle site, but to help explain its relationship to other area monuments.

They opted for an overall look of the structure's exterior that recalled the earthwork defenses that dotted the Civil War battlefield near the site. The main building is partially buried, as to fit in with the plot's natural ridge. Its exterior walls are a combination of sections of massive poured concrete flanked by masonry walls made with bricks burned from locally quarried clay.

The architects used the concrete surface as a teaching tool. They used a special concrete finish to create a setting of conflict—the clash of the two armies.

For more, visit www.corinth.net.

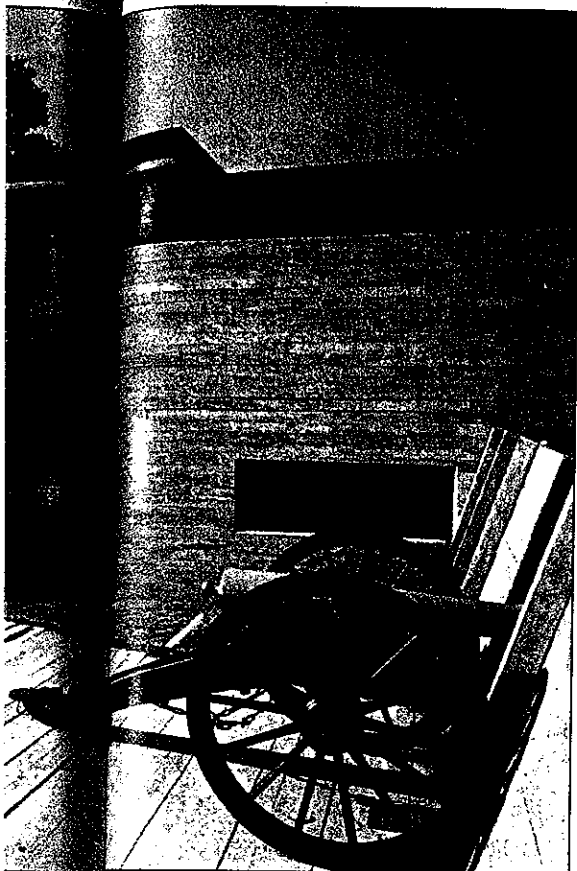


The exterior walls of the Corinth Civil War Interpretive Center are a combination of sections of poured concrete flanked by masonry walls.



LOOKING FOR A HIGH VO





Concrete, the concrete producer that cast the elements, it was one of the toughest projects in his more than 15 years in the concrete industry.

Organizers originally planned to open the observation tower in spring 2004 to tie into the opening ceremonies for the start of the Bicentennial celebration of the Lewis & Clark expedition.

Originally, the designer had planned for the tower to have a cast-in-place core, and to use architectural cladding to create the fins. Eventually, through consultation with Dennis Nemez, High Concrete's regional sales manager, the designer agreed to the precast approach.

Tall and wider at the top

For Bowman, the most intriguing view of the structure is to stand at the tower's base and look straight up. One unique feature of this project is that the tower actually widens as it rises. "The architect wanted to provide a sense of openness for those that climbed to the top," says Bowman.

The design presented a significant problem to Bowman's team that delayed the start of the project. The team wanted to check the design to determine how the thin, tall structure would react under a wind load. "We had to convince the owner that we needed a wind tunnel study," says Bowman.

The elements were cast by High Concrete's plant in Springboro, Ohio, and trucked to Hartford. The project was cast with self-consolidating concrete, which helped achieve the desired fluted look on the tower's sides.

The structure's exterior also posed some challenges for the design team. Originally, the architect wanted the cast-in-place structure to be cladded in precast panels. But when the project turned to precast, there were no panels. The distinctive coloring was stained onto the concrete surface at the plant. **TCP**

To learn more about the Confluence Tower memorializing the winter camp and beginning point of the Lewis & Clark Expedition, visit www.confluencetower.com.

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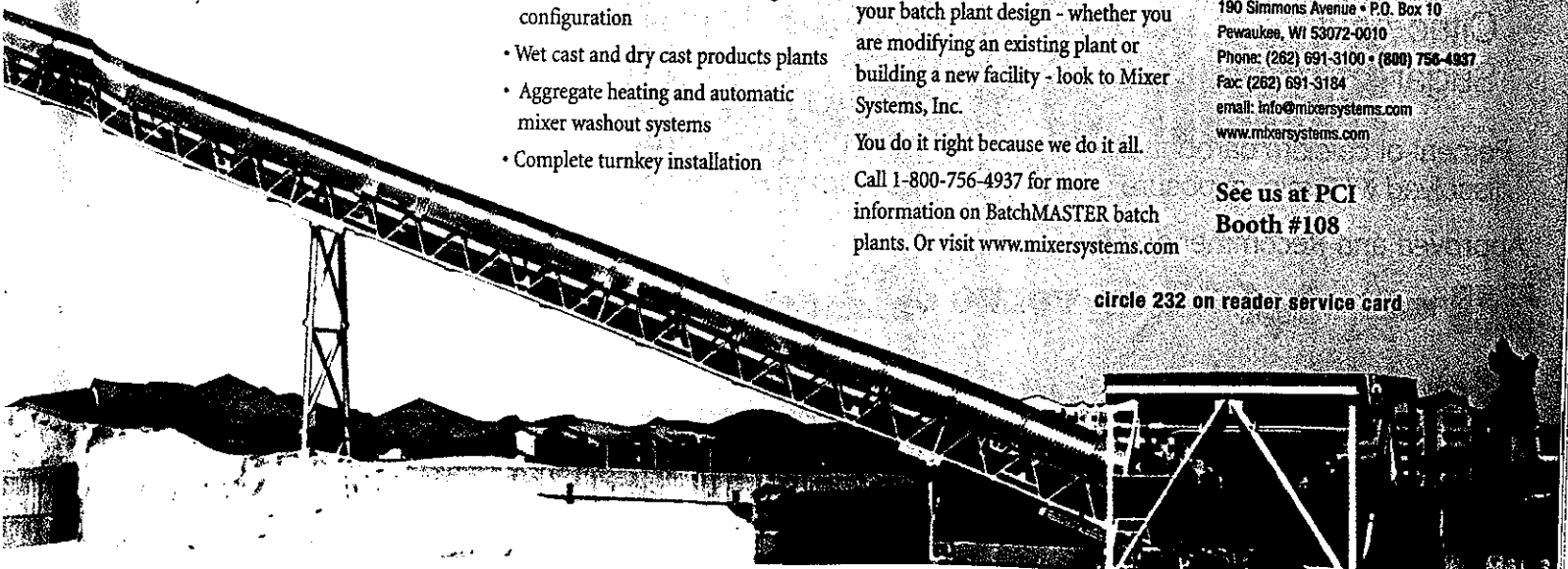
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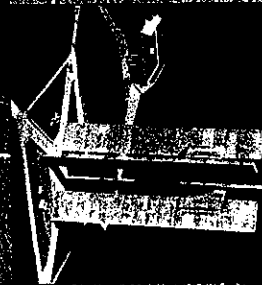
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Bonne Wash., U.S.-
 Canada border 1921
 The first monument
 dedicated to world
 peace, the International
 Peace Arch represents
 the longest undivided
 border in the world.



Kalvin, M.D., U.S.-Canada
 border 1982
 The Peace Towers' 120-foot
 pillars symbolize the gathering
 of people from the four
 corners of the world to
 form two similar, but distinct
 nations—the United States
 and Canada.



Oregon, Ill., 1911
 The 50-foot statue
 of Chief Black Hawk,
 designed by Lorado
 Taft, is a tribute to
 native Americans.
 Estimated at 100
 tons, some believe it
 is the second largest
 concrete monolithic
 statue in the world.



Honolulu, 1962
 The USS Arizona
 Memorial commemo-
 rates the site where
 World War II began for
 the United States. It still
 straddles the ship where
 1177 crewmembers
 died during the attack
 on Pearl Harbor on
 Dec. 7, 1941.

