

## **Boat Slip Constructed Using OPEN CELL® Structure and L.B. Foster Sheet Pile**

The Argosy Casino boat slip expansion is the largest OPEN CELL structure built on the Ohio River to date. It is the first structure built with back-to-back facewalls and interlaced tailwalls. It is also the first structure constructed at ground level, excavated and then flooded. 4,100 tons of PS 27.5 flat web steel sheet pile were used during the construction. Original bids to build the slip using other techniques were rejected in favor of using the more cost-effective OPEN CELL technology. L.B. Foster's strategic supply partner, the then Chaparral Steel (now Gerdau Ameristeel), rolled the flat web steel sheet pile in early 2006. The sheet pile was transported via rail to a transloading and storage facility near Cincinnati, OH. Due to permitting delays, actual construction did not begin until the spring of 2007 and was completed in seven months, which allowed the hulls for the new gaming vessel to be floated into place in November 2007. This accelerated schedule required close coordination between L.B. Foster and local contractor Richard Goettle, Inc. to ensure timely and consistent delivery of the steel sheet piles to the construction site.



*Ground level view of OPEN CELL structure*

### **OPEN CELL Bulkheads**

OPEN CELL bulkheads are used primarily in docks and similar marine structures. The bulkheads are simple to construct, often resulting in shortened construction time frames, and by design, they eliminate the need for labor-intensive tie backs consisting of walers, tie rods and deadmen, as well as related issues of backfill settlement often associated with these tied-back designs. The OPEN CELL bulkhead can also serve as a temporary excavation support that would enable the contractor to eliminate the need for walers, as well as internal bracing resulting in an easily accessible excavation in addition to potential time and cost savings. L.B. Foster's strategic alliances with PND Engineers, Inc., who currently holds two U.S. patents for the OPEN CELL technology as the designer, and Gerdau Ameristeel, who manufactures the flat web sheets which the designs utilize, insure cost-effective design as well as timely supply of the OPEN CELL system.



*Over 4,100 tons of flat web sheet pile were used during construction*

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