Notes From The Director

I am pleased to present two very unique applications for precast concrete this month that really illustrate the diverse nature of our products. The Berkeley pool project proved that, by accelerating construction and reducing weather constraints, real dollar savings could be achieved through the use of modular precast elements.

Although the U.S. Army Corps of Engineers has been using precast dolosse elements for quite some time, the Oswego project is utilizing some of the largest units ever produced.

While these two projects could not be more different in terms of scope and volume (although they are both water applications), each one was successful due to the innovative use of precast technology coupled with effective planning and coordination among the players involved.

Warmest Regards,

Ronald E. Thornton, P.E.
Berkeley Aquatic Club—Precast Swimming Pools

Submitted by Andrew Bell, P.E., of A.S. Bell Engineering, P.C.

This project, located in New Providence, NJ, consisted of a ten-lane 50meter Olympic style main pool and a three-lane 25yd short course pool constructed with modular precast concrete elements. The P-Kast Pool System offers a patented precast wall panel designed using time-tested and proven technology. This construction technique provides all the strength and credibility of a concrete structure at a greatly reduced cost for installation when compared to conventional pneumatically-applied or cast-in-place construction techniques.

The two pools also use vacuum filtration systems and the Paddock Evacuator chloramine capture and release system along with a UV light chloramine destruct system to further enhance air quality within the facility.

Construction of the project began in July 2014 with an estimated completion date of April 2015. The use of precast elements allowed construction to continue through the winter.

Project Credits:
Owner: Berkeley Athletic Club, Providence, NJ
Engineer: A. S. Bell Engineering, P.C., Slingerlands, NY
Precast Manufacturer: LHV Precast, Kingston, NY
Port of Oswego Breakwall/Shoreline Protection Repair

Submitted by Gina Lathan of Lakelands Concrete Products

The U.S. Army Corps of Engineers discovered that severe damage had occurred to the breakwater walls protecting the Port of Oswego, the first U.S. port-of-call on the Great Lakes, as a result of Superstorm Sandy in 2012. Accordingly, USACE commenced the reconstruction of approximately 7000 feet of breakwater utilizing precast dolosse elements. Dolo blocks are complex precast units weighing up to 20 tons each and placed in large quantities in such a manner to protect harbor walls and shorelines from the erosive force of wave action. The flutes that make up each dolo are 11’ long and 42” in diameter.

Precast producer, Lakelands Concrete Products, cast nearly 1000 of these units at a rate of eight per day using 7000psi concrete. The PCI certified facility employed stringent quality control measures to ensure that each dolo conformed to project specifications.

Installation is currently underway and is scheduled for completion by November 2015. Blocks are being carefully placed from a massive barge hauling 75 dolosse at a time from the port to the breakwater area.

Project Credits:
Owner/Engineer: U.S. Army Corps of Engineers, Buffalo District
Destructive Testing: Concor Precision, Brewerton, NY
Precast Engineer: Ron Samsell, P.E., Henrietta, NY
Contractor: Durocher Marine, Division of Kokosing Construction Company, Cheboygan, MI
Precast Manufacturer: Lakelands Concrete Products, Lima, NY
NYSDOT Issues Engineering Bulletin EB 14-040
This EB revises box culvert and 3-sided details to meet USACE requirements to provide native streambed materials above solid invert slabs. (EB 14-040)

ACI-CNY Dinner Meeting
Dr. Ken Hover will be the presenter for the next ACI-CNY dinner meeting on September 9 at the Double Tree Hotel in East Syracuse beginning at 5:30PM (Information)

ABCD-WNY Announces Fall Bridge Conference.
ABCD is currently seeking presenters for its 27th Annual Bridge Conference to be held at the Millennium Airport Hotel in Buffalo on Friday, November 13. (Information)

ASTM C13 Committee meeting.
ASTM C13 Committee on Concrete Pipe will meet September 14-16 at the Sheraton Inner Harbor Hotel in Baltimore, MD (Information)

NPCA Annual Convention.
The National Precast Concrete Association’s 50th Annual Convention will be held October 21-24, 2015 at the Marriott City Center in Minneapolis, MN. (Information)