

THE DELTA ADVANTAGE

Design Topics for Precasters

Volume 3, Issue 1

May 2000

We're back

With a new look

We have had several requests for more of our newsletters so we decided it was time to resurrect The Delta Advantage. As always, your comments and suggestions are most welcome. We have adopted a slightly different look but we hope you will continue to find the content both informative and helpful. ■

Article Appears in MC Magazine

The Fall 1999 issue of MC Magazine contained an article co-authored by Delta Engineers' President Ralph Verrastro and Christian Prilhofer of CPC Consulting in Freilassing, Germany on the virtues of precast plant automation. European producers, fueled by severe labor shortages, have successfully incorporated robotics and other automation systems into their production process to significantly reduce labor costs while increasing production throughput and product quality.

Typical systems are based on a carousel pallet work circuit where the product is physically moved through its production process at various workstations within the plant. Typical work stations include:

- Mold preparation
- Placing reinforcement
- Placing inserts or other items
- Concrete placement
- Curing chamber
- De-molding
- Mold cleaning

Because of the specialized equipment required in each of these operations, it is advisable to have an unbiased assessment from an independent consultant on the type of equipment to be purchased. This way, the equipment can be designed and purchased to fit the process and

not vise-versa.

Please contact us for further information on plant automation or if you would like a reprint of the article. ■

MCX 2000 a Success

Delta Engineers, P.C. was proud to participate in the February 2000 precast exhibition in Kansas City displaying both our available plant automation services as well as our structural design and drafting services.

We were particularly pleased with the opportunity for both Ralph and Christian to participate as panelists in the forum on Production Flow and Plant Automation. Over 200 people attended this course in order to be better prepared for the future in precast plant production. ■

Load Testing: An Option for Flat Slab Tops

ASTM C478-95a "Standard Specification for Precast Reinforced Concrete Manhole Sections" provides for the acceptance of flat slab top units based on the successful completion of a proof-of-design test. The test procedure is defined in ASTM C497-95a and is relatively easy to perform. We have found that, in some cases, a reduction of reinforcing steel can be realized from designs based on traditional computations. It is imperative that the procedure be witnessed and documented by a professional engineer. Please contact us if you would like more information regarding our experience in the design and load testing of precast concrete products. ■

Prepared by: Ron Thornton, EIT
Delta Engineers, P.C.
164 Court Street
Binghamton, New York 13901

Ph. (607) 724-1367, ext. 12
Fax(607) 723-6746
E-mail: rthornton@deltaengineers.com
Web: www.deltaengineers.com



DELTA ENGINEERS, P.C.
ENGINEERS • ARCHITECTS

164 COURT STREET, BINGHAMTON, NY 13901
TEL: (607) 724-1367 FAX: (607) 723-6746
E-MAIL: mail@deltaengineers.com
Web Site: www.deltaengineers.com

Delta Engineers, P.C. provides specialized service to the precast/prestressed concrete industry including:

- *Structural design and analysis*
 - *Erection plans*
 - *Detailed shop drawings*
 - *Plant automation consulting*
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Proud Members of



Featured Project

Wildlife Barrier, Alachua County, Florida
Owner: Florida Department of Transportation
Produced by: Oldcastle Precast, Jacksonville, Fla.

This project included nearly 18,000 feet of precast barrier wall intended to keep alligators from venturing onto Florida's highways. Originally designed to be cast in place, a precast alternate was accepted by FDOT which significantly reduced construction time. ■



30 foot sections of wildlife barrier ready for shipment.

Please send us your project photos to be featured here

Delta Engineers, P.C.
164 Court Street
Binghamton, New York 13901

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