

Skaneateles Country Club Underpass



Storm water is collected on the upstream end, and piped to the downstream side of the underpass.



Photos by Kistner Concrete Products.

Every project has its challenges. An old cattlepass under state route 41A was not suitable for golfers or carts to get across the road, so the club decided in 2004 a new underpass was needed. But another road project was going on in the area, and the state would not allow two detours handicapping drivers simultaneously. This delayed the project past the construction season, and into 2005. And since golfers mostly play in the good weather, the push was on to complete this work with minimum disruption.

Though this was a private undertaking, it affected a state highway, and therefore had to be approved by the NYSDOT, and built to their specifications, including compliance with an approved QC/QA control and inspection program. The Club wanted maximum height inside the tunnel for passage of maintenance equipment, and finished grades that would not flood during heavy rains; the state required that the road grade and elevation not be changed. Existing utilities and a water line also had to be reinstalled in the new structure.

Carmen Lapine and Jeff Reina of Beardsley Design Consultants knew precast was the obvious choice, as it was easy to construct, installation would be quick, quality inherent, and design straightforward. The 60' long tunnel was constructed using ten box culverts, 12' inside span by 8' inside rise. The articulated wingwalls were plant built using standard Kast-Block installed over projecting steel from the slab member, and then filled with concrete to complete the cantilevered system.

The contractor, Orchard Earth & Pipe, was concerned that the time needed to precast all the components would impact his schedule. But Kistner Concrete Products got the work done in ample time (noting every job is needed yesterday), and the work was completed about 10 days earlier than the 4 weeks planned. In true team spirit, everyone felt everyone else was at the top of his game, and the work went better than par.

Precast Concrete Arch Bridge Wins Award



Completed Marcellus-Skaneateles Road Bridge over Nine Mile Creek replicates original hand laid stone arch structure.

The County Route 41 Bridge over Nine Mile Creek replacement project was initiated by the Onondaga County Transportation Commissioner in cooperation with the NYSDOT Region 3. It was awarded "Project of the Year" for 2004 by the American Public Works Association Central New York Chapter.

The original CR 41 bridge was a single span stone masonry arch. The bridge was originally built in 1900 and was widened in 1967 with the addition of three steel girders supporting a concrete deck on the north side. The stone arch had a large, full-length longitudinal crack on the right side and loose, soft, and disintegrating stones throughout. Emergency repairs, in the form of concrete buttresses, were performed in 2002 to stabilize the arch. Concrete barrier was placed to restrict traffic from driving over the most deteriorated portion of the arch.

Since the crossing is highly visible within the Village of Marcellus, it was important to the community that the new bridge reflect the character of the original structure. It also had to be aesthetically pleasing, cost effective, and constructed with a minimum impact on traffic and local businesses. The replacement two-lane single-span concrete arch bridge features an architectural treatment simulating the original laid up stone on all exposed concrete surfaces. To accelerate construction and minimize the impact on local residents, designers Barton & Loguidice, P.C. specified precast concrete for the bridge, spandrel walls, and wing walls.



Con-Span arch units quickly, easily installed.



All precast components supplied by Kistner Concrete Products, Lockport plant.



Stone faced precast walls plant cast with form liners.



Head walls mechanically connected to arches for impact resistance.

All photos by Barton & Loguidice, P.C. Article compiled from The Low Bidder (AGCNY) and B & L information.

QCQA Labs, Stephenson Equipment New Members

PCANY welcomes two new members this month. Stephenson Equipment, Inc., East Syracuse, sells and rents many types of cranes, and offers inspections, parts and service. Eric Vreeland is territory manager. QCQA Labs, Schenectady, performs testing on concrete and masonry, as well as inspection, engineering and consulting services. Ronald Berube, P.E., is engineering manager, and Thomas Lloyd is their lab manager.

Special Report on Katrina Bridge Damage

Precast segment switching expedites Louisiana I-10 reopening plan

With an eye toward repairing a critical portion of Interstate 10, linking New Orleans to Baton Rouge and Texas, Louisiana DOT officials have awarded an emergency \$30.9 million contract calling for a shuffling of precast roadway segments along a 5.4-mile twin bridge structure spanning Lake Ponchartrain. The contract requires crews — working on a 24-hour/seven-day schedule — to use intact segments from the most damaged structure (westbound) as replacements for damaged portions on the more intact eastbound twin. The 300-ton-plus segments combine prestressed concrete I girders with integrally cast decks, all resting on pile bent-type piers. Hurricane Katrina's storm surge damaged or destroyed segments on both structures, leaving I-10 impassable. Most pile bents appear intact but have not been tested. The first of the contract's three phases entails completion of repair and segment replacement on the eastbound span, which is scheduled to reopen by October 25 and create one lane for each direction of travel.

Florida experience

The method of moving precast roadway segments between twin spans has most recently been deployed by Florida Department of Transportation officials, who sought rapid repair of twin I-10 Escambia Bay structures ravaged last year by Hurricane Ivan. After Katrina hit, FDOT officials assisted their Louisiana counterparts in determining the feasibility of moving segments between the Lake Ponchartrain crossing to restore limited I-10 service, and now are preparing to loan Acrow components sufficient for about 2,000 ft. of the Lake Ponchartrain crossing. FDOT also provided LaDOT shop drawings and contract language for use in preparing the contract as a design-build job. Florida officials chose to issue a contract for the Escambia Bay replacement twin bridge as design-build. That fast track project is scheduled to open by December 2006, with pile driving now under way. The job will incorporate primarily 36-in. diameter prestressed cylinder square concrete piles; precast pile caps; 135-ft. prestressed bulb tee girders; and cast-in-place deck. The precast production is split between Tampa-based **Standard Concrete Products** and **Gulf Coast Pre-Stress** (GCP), whose plant is in Pass Christian, Miss., one of the areas hardest hit by Katrina. Clean up from the storm surge, and the restoring of power and water, will likely have GCP re-starting production by the end of September.

Story source: *Concrete Currents*, from the Editors of Concrete Products, Sept 19, 2005.

Visit www.pcanyc.org for more information on:

- **precast concrete products** and their application
- **precast concrete producers** with links to their websites
- **precast concrete association of New York, PCANY**

If you would like to receive this newsletter via email instead of hard copy in the mail, send your request and email address to pcany@aol.com.

PCI Engineering Competition 2005 - Big Beam Contest

The Judging Committee met on August 2 at PCI Headquarters to select zonal and overall championship winners from 38 entries.

Congratulations to:

Overall Sixth Place went to Clarkson University, Potsdam, NY.

Faculty Advisor: Jubum Kim

Student Team: Karl Bauer, Michael Fuchs and David Grey

PCI Producer: Jefferson Concrete Corporation, Watertown, NY

Award: \$1000 along with other prizes

Zone 5 Second Place went to United States Military Academy, West Point, NY.

Faculty Advisor: LTC Fred Meyer

Student Team: Cadets Mathew McCullough and Jin Wang

PCI Producer: Oldcastle Precast, South Bethlehem, NY

Award: \$750 along with other prizes

The BIG BEAM CONTEST rules will be slightly changed and the beam size will be modified for 2006. The brochures are now ready, and it is time to prepare for next year's contest. Check with PCI or PCANY if you haven't received yours.

2005 PCANY Bylaws

In our continuous effort to stay current, the Association votes changes, updates, and corrections to its Bylaws as deemed appropriate. In the past, we have printed these bylaws in a document similar to our annual membership directory. However, for ease of accessibility and reference, it is now listed in its entirety on our website. Please go to www.pcanyc.org to read it or print out a copy.

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FUTURE EVENTS CALENDAR

October 10 PCANY General Meeting, 1:30 pm, Holiday Inn Express, 1442 Western Avenue, Albany

October 11 PCANY meetings with NYSDOT Materials and Structures, 50 Wolf Road, Albany

October 18 PCANY Septic Tank Group meeting, 12:00 (lunch) AGC Conference Room, 10 Airline Drive, Albany

January 11 Bridge Design Workshop, all day, New York City

January 12 Bridge Design Workshop, all day, Albany

February PCANY Annual Business Meeting

Producer Member Companies:

AFCO Precast, Middle Island, NY
A & R Conc Specialties, New Windsor, NY
Bayshore Conc Prod, Cape Charles, VA
Binghamton Precast, Binghamton, NY
Carrara & Sons, Middlebury, VT
Coastal Pipeline Products, Calverton, NY
Concrete Building Supply, Plattsburgh, NY
William E. Dailey, Shaftsbury, VT
The Fort Miller Co, Schuylerville, NY
Hanson Pipe and Products, Pottstown, PA
Jefferson Concrete, Watertown, NY
Kistner Conc Products, East Pembroke, NY
Newcrete Products, Parsippany, NJ
Oldcastle Precast, South Bethlehem, NY
Riefler Concrete Products, Hamburg, NY
Roman Stone Const Co, Bay Shore, NY
Rotondo Precast, Avon, CT
Schuykill Products, Cresona, PA
Sunnycrest Inc, Auburn, NY
Unistress Corp., Pittsfield, MA
LC Whitford Co., Wellsville, NY

Associate Member Companies:

A-Lok Products, Tullytown, PA
Amcrete Products, Newburgh, NY
Concrete Sealants, Royersford, PA
Cresset Chemical Co, Weston, OH
Dayton Richmond Corp, Collinsville, CT
degussa.Construction Chemicals, Cleveland, OH
Eastern States Steel, Upper Saddle Riv, NJ
Engineered Wire Products, Upper Sandusky, OH
Euclid Chemical Co, Saratoga Springs, NY
WR Grace, Old Chatham, NY
H & H Hulls, Hudson, NY
Helsel Industries, Tualatin, OR
Henry Company, Houston, TX
Meadow Burke, Merrimack, NH
Mixer Systems, Pewaukee, WI

Northeast Solite Corp., Saugerties, NY
O W Hubbell & Sons, New York Mills, NY
Polylok, Yalesville, CT
Press Seal Gasket Corp, Boxford, MA
Jeppo Sales, Royersford, PA
JVI Inc, Pittsfield, MA
NPC Inc, Milford, NH
A L Patterson, Fallsington, PA
Rebar Systems, Cotuit, MA
Sika Corporation, Fairless Hills, PA
Spillman Company, Columbus, OH
Splice Sleeve N A, Bonita Springs, FL
Stelcrete Industries, Niagara Falls, Ontario
Stephenson Equipment, East Syracuse, NY
Syracuse Castings Sales Corp, Cicero, NY
TUF-TITE, Lake Zurich, IL
USF Fabrication, Durham, CT
E-Z Set, Haymarket, VA

Septic Tank Producer Companies:

Burnett Concrete Products, Wolcott, NY
Butts Concrete Products, Masonville, NY
Eastern Precast Co, Brookfield, CT
Grimm Build Materials, Green Island, NY
Guardian Block, Schenectady, NY
Hoyle's Concrete Products, Rome, NY
Keeler Vault, Hudson, NY
Oneonta Block, Oneonta, NY
R Deso, Inc Champlain, NY
Woodard's Concrete Products, Bullville, NY
Zeiser Wilbert Vault, Elmira, NY

Professional Member Firms:

Abate Engineers, Buffalo, NY
Advance Testing, Stockbridge, MA
Barton & Loguidice, Syracuse, NY
Bay Saver, Mount Airy, MD
A.S. Bell Engineering, Slingerlands, NY
Bergmann Associates, Rochester, NY

A L Blades, Hornell, NY
Clough Harbour & Assoc, Albany, NY
Con/Span Bridge Systems, Dayton, OH
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Delta Engineers, Binghamton, NY
DiDonato Associates, Buffalo, NY
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FRA Engineering, Henrietta, NY
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Hunt Engineers & Architects, Corning, NY
LaBella Associates PC, Rochester, NY
LEAP Associates, Tampa, FL
Maser Consulting, West Nyack, NY
McFarland-Johnson, Inc., Binghamton, NY
Nussbaumer & Clarke, Buffalo, NY
O'Neil Consulting, Spring Lake, NJ
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Ryan-Biggs Associates, Troy, NY
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R Samsel Engineers, Henrietta, NY
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Spectra Engineering, Latham, NY
Stromecki Engineers, PC, East Aurora, NY
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Edward Watts Engrs, Williamsville, NY
Wilbur Smith Associates, Latham, NY

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