

## PRECAST GARAGE AT SENECA CASINO LIFTS LOCAL ECONOMY

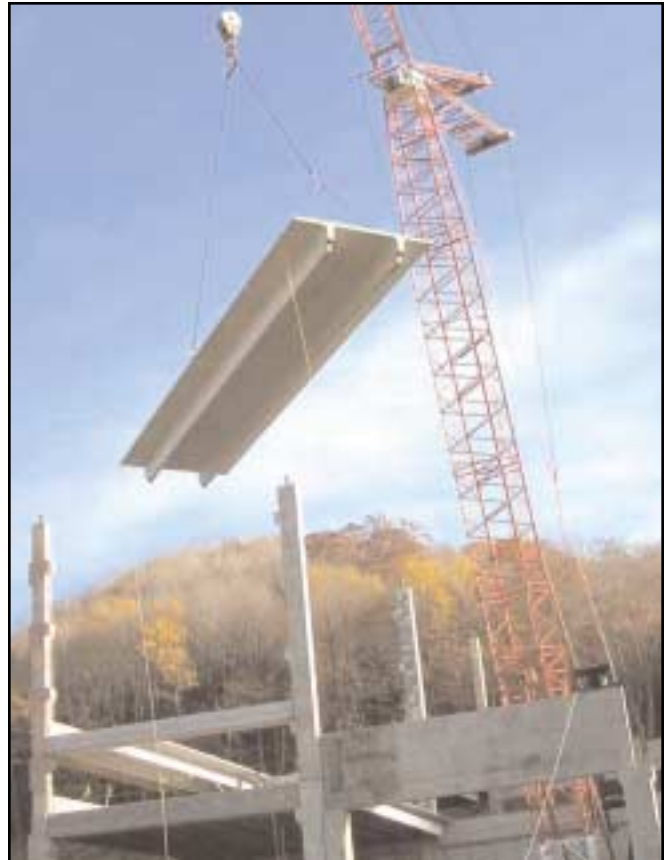
The Seneca Nation's decision to use local contractors has resulted in a boost to the Western New York economy, showing that a gambling casino can give out even before it takes in. The contract to build a 2000 car parking garage was awarded to a joint venture between E.R.W. Enterprises, Gowanda, NY and The L.C. Whitford Co. Inc., Wellesville, NY.

The precast structural elements consisting of columns, light walls, inverted tees, transfer girders and double tees (approximately 600 tees 15' wide and 100 tees 10' wide) were manufactured at The L.C. Whitford Materials Co. plant. The architectural elements were awarded to Architectural Precast Inc. of Middleburg, PA.

L.C. Whitford, a major prestressed highway beam supplier, was not set up to produce structural shapes for a parking garage – and this was a fast track project! In their typically innovative way, they quickly acquired adjacent land, new forms, cranes, curing equipment, trailers, and additional testing equipment. Since there was no room on the site to stock any product, they made use of an abandoned runway on the old Wellsville airport located adjacent to their plant. This allowed one third of the 15' tee production to be stored in a four high double row stretching half a mile along the runway!

Casting was started August 14, and completed December 12; erection started late in 2004 and required about four months to install over 1000 pieces. The 15 foot wide double tees were made with 5" thick flanges, which are structural and serve as the finished deck. The 10' wide tees, with 2.5" thick flanges, were used at the first level, and were topped onsite with composite concrete topping. Whitford used a 330 ton capacity Manitowoc crane for erecting. The crane, with 140 feet of main boom and 110 feet of luffing jib was rented from Baldwin Crane, Wilmington, MA and was delivered on 14 tractor trailers, and erected in less than 16 hours.

The project architect is Jeter, Cook & Jepson, Hartford, CT. The parking garage structural Engineer is A. H. Sample Inc. of Ottsville, PA, who has been L.C. Whitford's consultant for twenty years in the design of prestressed bridge beams.



Setting 15' wide double tee



Getting a good parking spot will not be left up to chance



15' wide pretopped tees stretch out for half a mile prior to erection (photos by L.C. Whitford)

# PARKING STRUCTURES: CONDITION ASSESSMENT & REHABILITATION DESIGN

As precasters, we make a wide range of products. Obviously no one will mistake a septic tank for a parking garage. But there is a similarity: if the owner doesn't do preventative maintenance on a regular schedule, he will be faced with significant repair or replacement costs some time in the future. Over the many decades of building concrete parking structures — whether pre-cast, cast in place, steel with concrete decks, or whatever — proper maintenance has paid off with long life. The quality of concrete and the knowledge of good design and detailing has continuously improved. Recognizing the importance of regular maintenance, PCI has published a document specifically designed to assist in this matter. (MNL-136-04 Maintenance Manual for Precast Parking Structures).

But the reality of life is that old garages have old problems, and recent garages often need attention also. Many design firms, such as Wilbur Smith Associates, offer expertise in condition assessment and rehabilitation, in addition to new project development and design. WSA is involved in many such projects, like the Cannon Street Deck, Financial Plaza Parking Structure, and Market Street Garage in Poughkeepsie, NY. They offer studies of existing decks, prepare final plans, specifications, and estimates for rehabilitation work, and assist owners in maintenance or construction functions. They currently are also involved in work with the cities of Oneonta, Asbury Park, and Harrisburg.

We encourage all parking garage owners to arrange a crew to perform regularly scheduled maintenance, and perform necessary repairs in a timely manner. These three photos, supplied

by WSA, show some structural distress in old decks. They are proposing CFRP repairs to reconstitute original structural capacity and extend useful service life. Carbon fiber reinforced polymer repairs are being made all around the country for this purpose. Talk with some of your chemical suppliers for more information. (Credits to James Walrath and Shahin Nejad at Wilbur Smith Associates for this information.)



Chestnut Street – Cracks in precast concrete beam



5th Street – Cracked beam-column connection



Locust Street – Cracks in ends of double tees (photos by W.S.A.)

## WELCOME TO LAMONT ENGINEERS, P.C.

Doug Van Deusen, Project Manager, Lamont Engineers, has joined PCANY. Doug has attended several recent Septic Tank Group meetings, as well as being active in the OTN.

We appreciate his support.

## BEST WISHES TO CARL A. BRUHNS

After 53 years in the steel industry and nearly 50 years involved with Welded Wire Reinforcement, as well as an industry rep for many products and PCANY involvement from our start, Carl is not taking any more calls. We will miss him, and we wish him much happiness in retirement.

# GARAGES DO MORE THAN PARK CARS

Two recent parking structures supplied by Unistress Corp., Pittsfield, MA can be considered multi-use structures. The 87,000 sf, 400 car garage for Columbia Memorial Hospital in

Hudson, NY supports half an office building over it. The columns, litewalls, and shearwalls support half of the office building, and the remainder is on grade.



Columbia - Stair box unit hoisted into position



Columbia - Finished stair tower and garage nearing completion

Atlas Park Garage, Queens, NY is an example of how the technique of building from inside out allows precast structures to be installed in very tight sites. This 185,000 sf facility parks 700 cars on 4 supported levels. Additionally, some of the adjacent movie theater is built over the garage. Built into the park-

ing structure are shear-frames primarily for the movie theater structure. Only by working from within the building footprint could the exterior fire walls be installed immediately next to the adjacent existing structures.



Atlas - structural support wall also serves as firewall



Garage tight against theater retaining wall Photos by Unistress Corp

# PCANY MEETINGS

PCANY's Board of Directors met in Albany on Oct 10, followed by an association meeting. The next day, we met with the NYSDOT Materials Bureau in the morning, and the Structures Support Group in the afternoon. On Oct 18 the Septic Tank Group met for lunch and an afternoon meeting, with guest speakers from NOWRA, NPCA, and the DOT Permit Section. Notes taken at these meetings have been emailed, but if anyone wishes to get a copy, contact Carl Buchman.

We also attended the Statewide Conference on Local Bridges, Oct 26-27 in Syracuse. This featured presentations of local and regional bridges, installations, reconstructions, problem resolutions, etc. About 380 people attended. To access the

conference presentations, go to [www.dot.state.ny.us](http://www.dot.state.ny.us), click on NYSDOT Departments, select Structures Design & Construction, click on Events/News, Reviews of Statewide Conference on Local Bridges, year desired, Presentations.



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PRECAST CONCRETE ASSOCIATION OF NEW YORK

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## FUTURE EVENTS CALENDAR

- Nov 30-Dec 1**      **NPCA PQS SCHOOL, Albany**
- Dec 6-8**            **AGC/DOT Technical Conference, Saratoga Springs**
- January 11, 2006**   **Full Day Bridge Design Workshop, New York City**
- January 12, 2006**   **Full Day Bridge Design Workshop, Albany**
- February 2006**    **PCANY Annual Business Meeting**

## NPCA Announcements

Nominate your company or your project for this years CUP, Safety, or Pinnacle Awards. Entry deadline is December 16; entry forms can be downloaded from the NPCA website. And register someone soon for two days of intensive training on a wide range of precast concrete topics: Production and Quality School, Albany, NY, Nov 30 - Dec 1.

### **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  
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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

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A-Lok Products, Tullytown, PA  
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Concrete Sealants, Royersford, PA  
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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  
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Stephenson Equipment, East Syracuse, NY  
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TUF-TITE, Lake Zurich, IL  
USF Fabrication, Durham, CT  
E-Z Set, Haymarket, VA

### **Septic Tank Producer Companies:**

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Butts Concrete Products, Masonville, NY  
Eastern Precast Co, Brookfield, CT  
Grimm Build Materials, Green Island, NY  
Guardian Block, Schenectady, 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  
Delta Engineers, Binghamton, NY  
DiDonato Associates, Buffalo, NY  
Finley Engineering Group, Tallahassee, FL  
FRA Engineering, Henrietta, NY  
Greenman-Pederson Inc, Albany, NY  
Greenman-Pederson Inc, Buffalo, NY  
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  
Popli Consulting Engineers, Penfield, NY  
QCQA Labs, Schenectady, NY  
Ryan-Biggs Associates, Troy, NY  
A H Sample Engineers, Ottsville, PA  
R Samsel Engineers, Henrietta, NY  
Chas H Sells, Briarcliff Manor, NY  
Simpson Gumpertz & Heger, Waltham, MA  
Spectra Engineering, Latham, NY  
Stromecki Engineers, PC, East Aurora, NY  
TVGA Consultants, Elma, NY  
Edward Watts Engrs, Williamsville, NY  
Wilbur Smith Associates, Latham, NY

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