The Federal Highway Administration
and the
National Concrete Bridge Council
are pleased to announce
The Concrete Bridge Conference
October 7 - 9, 2002
Opryland Hotel, Nashville, Tennessee

The Concrete Bridge Conference (CBC) will be the premier national venue for the exchange of ideas and information on all aspects of concrete bridge design and construction.

Concrete bridges continue to grow in their selection as the material of choice. They command more than 70 percent of the share of highway bridges built each year. The interest in high performance concrete (HPC), speed of construction and replacement, new forming methods, beam splicing techniques, and new materials, to name a few topics, has dictated the need for this new conference. Together, state and federal agencies and industry have joined forces and are committed to this annual meeting that will bring together the nation's most experienced, expert practitioners.

Concurrent sessions will focus on topics fresh from the design boards and construction sites. Attendees will receive a written copy of presentations. Social events and gatherings will allow ample time to meet with colleagues for networking and for renewing acquaintances. A spacious exhibit hall will feature a dedicated Bridges Pavilion surrounding an annual "Spotlight State"– this year the Tennessee Department of Transportation.

Conference sessions will include such topics as:

- Projects from the FHWA Innovative Bridge Research and Construction (IBRC) Program
- Long-Span Concrete Bridges
- Follow-up to the HPC Showcase Bridges
- Innovative Concrete Bridges
- Project Reports
- Design-Build Bridges
- Rapid Construction Techniques
- Creative Concrete Bridges
- Post-Tensioning Technology
- Quality Assurance and Quality Control
- Contractor Alternate Design and Value Engineering
- Repair and Rehabilitation
- Research
- Seismic Design
- Aesthetics

All of the activities will occur alongside the PCI Annual Convention and Exhibition that since 1954 has become the leading showcase for the precast, prestressed concrete industry. The CBC will be dedicated to and inclusive of all types of concrete bridges.

A special bonus will be the opportunity to sit in on several cutting-edge committee meetings. On Sunday, October 6, the PCI Committee on Bridges will hold its regular semi-annual meeting lasting from 8:00 a.m. to 5:00 p.m. This meeting traditionally is the single most important venue in the country for the presentation and discussion of state-of-the-art information on precast, prestressed concrete bridges. The committee comprises some 60 consultants, state highway agencies, precast manufacturers and academics. Discussions often involve proposed revisions to the AASHTO Design Specifications, new applications for precast products, or development of new publications to assist designers.

On Monday, October 7, from 1:30 to 5:30 p.m., the PCI Committee on Bridges will meet once again, this time in joint session with the AASHTO Technical Committee on Concrete Design (Technical Committee T-10). These productive meetings include some 15 state and federal bridge engineers who guide the direction for the AASHTO Design Specifications for concrete.

In addition, all CBC registrants are automatically registered for the entire PCI Convention and its many events and technical committee meetings. These meetings include high performance concrete, prestressing steel, seismic design, piling, research and development, and soundwalls.

Exhibitors will include public agencies, concrete associations, bridge design and construction consultants, software consultants, and material, equipment and tool suppliers.

Mark your calendar now, October 7-9, 2002, in Nashville, Tennessee for the Concrete Bridge Conference. For more information, contact PCI at (312) 786-0300 or info@pci.org.

NOTE OF APPRECIATION

Every manuscript submitted to the PCI JOURNAL for possible publication is subjected to a thorough technical appraisal. This review process is conducted by at least five specialists in the paper's subject area.

Listed below are the members of this dedicated group of reviewers who appraised prospective technical papers submitted to the PCI JOURNAL in 2001 for publication consideration.

The Precast/Prestressed Concrete Institute is very grateful to each reviewer for the time and effort expended in performing this valuable service to the engineering profession and industry.

Neal S. Anderson
M. Arockiasamy
Alex Aswad
Sameh S. Badie
P. N. Balaguru
Craig T. Barrett
Kris G. Bassi
Kenneth C. Baur
Henry Bollman
Thomas E. Boothby
E. Fred Brecher
Chun S. Cai
Alp Caner
Reid W. Castrodale
Harry Chambers
Vijay Chandra
Ned M. Cleland
Anant Y. Dabholkar
Thomas J. D'Arcy
Walter H. Dilger
Charles W. Dolan
Mamdouh El-Badry
Roy L. Eriksson
Matt Farrar
Eugene C. Figg, Jr.
Greg Force
Sidney Freedman
Clifford L. Freyermuth
Ben C. Gerwick, Jr.
S. K. Ghosh
Harry A. Gleich
Nabil F. Grace
Mark Green
Kent Harries
Harry Harris
Simon Harton
Neil M. Hawkins
James K. Iverson
Phillip J. Iverson
L. S. (Paul) Johal
Lawrence F. Kahn
Malcolm Kerley
V. K. Kodur
Sudhakar Kulkarni
Paul Langohr
James R. Libby
Donald Logan
Zhongguo (John) Ma
Paul D. Mack
Rafael A. Magana
Leslie D. Martin
Robert F. Mast
Alan H. Mattock
Mac McCalla
Donald F. Meinheit
Richard A. Miller
Amir Mirmiran
Alan J. Moreton
Saad E. Moustafa
Antoine E. Naaman
Suzanne D. Nakaki
Antonio Nanni
George D. Nasser
William Nickas
McLeod C. Nigels
Jagdish Nijhawan
Michael G. Oliva
Andrew E. Osborn
Sang Yeol Park
Donald L. Pellow
Stephen P. Pessiki
Donald Pfeifer
Walter Podolny, Jr.
Steven H. Peterson
Courtney Phillips
José A. Pincheira
Basile G. Rabbat
Julio A. Ramirez
Sami H. Rizkalla
Bruce W. Russell
Henry G. Russell
Aziz Saber
Mohsen Saleh
Richard Sause
Kim E. Seeber
Stephen J. Seguirant
Surendra P. Shah
Mohsen Shahawy
Bahram Shahrooz
A. Fattah Shaikh
Khaled Soudki
Sri S. Sritharan
John F. Stanton
Mark Studt
C. Douglas Sutton
Maher K. Tadros
Benjamin Tang
Eric Tromposch
Edward P. Wasserman
John Williams
Stanley Woods
Charles E. Wynings
Paul Zia

LETTERS TO THE EDITOR

Vibration of Floors

Bob Mast's article on "Vibration of Precast Prestressed Concrete Floors" (November-December PCI JOURNAL) not only provides fundamental background information for the PCI Design Handbook, but is also a useful guide to structural engineers who might encounter vibration problems in the structures they design.

John Staples
Dallas, Texas

As is his trademark, Bob Mast did a superb job in disseminating the latest knowledge on vibrations (see article on "Vibration of Precast Prestressed Concrete Floors" in the November-December PCI JOURNAL) and presenting the information in a readily understandable technical article which structural engineers can easily apply.

Ted Nelson
Toronto, Ontario
Canada

Similar to the United States, design engineers in Europe also occasionally encounter vibration problems in their structures (see article by Robert F. Mast on "Vibration of Precast Prestressed Concrete Floors" in the November-December PCI JOURNAL). Usually, this phenomenon occurs in bridge structures rather than in buildings. The root of the vibration problem occurs when the floor slab thickness is made too thin relative to its span length and stiffness. Unfortunately, vibrations usually manifest themselves only after the structure has been built. The task, then, becomes in devising structural measures to dampen these undesirable vibrations.

Readers of the PCI JOURNAL might be interested in knowing that there is in existence in Switzerland a very excellent book on vibrations by Hugo Bachmann, titled *Vibration Problems in Structures: Practical Guidelines*. This book can be obtained from Birkhäuser Verlag Basel, P.O. Box 133, CH-4010, Basel, Switzerland.

Heinz Friesinger
Zurich, Switzerland

LG Design Projects

I would like to thank you for your help in assisting us in updating our PCI JOURNAL advertisement and also in announcing the opening of our new office in Las Vegas, Nevada in your Industry News section. We officially opened our new office on November 1, 2001. We at LG Design, Inc. are proud to be a long-standing member of PCI and consistently attempt to display the fact that we are members of PCI in all of our corporate advertisements. Consequently, it is gratifying to know that PCI employees are so helpful in times such as these when we need to update our ads or make announcenents. If you can, please mention that we have been awarded two PCI Design Awards for our work on the Chiron Science Building and the PRESSS Research Project. Thank you for all your assistance – it is truly appreciated!

Garen Gulbenkian
LG Design, Inc.
N. Hollywood, California

Remembering Art Anderson

I enjoyed reading Bob Mast's article on his remembrances of the Anderson brothers and their contributions to the prestressed concrete industry (see article on "My Adventures in Prestressed Concrete" in the November-December PCI JOURNAL). Not mentioned in the article is the fact that Art Anderson had earned a Doctor of Science degree from the Massachusetts Institute of Technology (MIT). Art was truly a visionary and had deep insight in the future of prestressed concrete. Early on in his career, he understood the importance of high quality, high strength concrete in precasting operations at a time when the ready-mixed concrete industry was content with 3000-psi concrete, or even lower strength. Today, we call this concrete "high performance concrete," which takes durability into consideration. As Bob Mast pointed out, he realized very early that bulb-tee girders were structurally much more efficient than and aesthetically

New Appointments to PCI Committees

The following individuals have recently accepted appointments to PCI committees. We appreciate their interest and voluntary participation.

- *Bridges Committee*

Morad G. Ghali
PBS & J
Tampa, Florida

Corey Greika
Tindall Corporation
Conley, Georgia

David Hohmann
Texas Dept. of Transportation
Austin, Texas

Loren Risch
Kansas Dept. of Transportation
Bureau of Design
Topeka, Kansas

Carin L. Roberts-Wollan
Virginia Polytechnic Institute
and State University
Blacksburg, Virginia

Michelle L. Tragesser
Robert H. Lee
Port Orchard, Washington

- *Bridge Producers Committee*

Don Theobald
Gulf Coast Pre-Stress, Inc.
Pass Christian, Mississippi

Burson Patton
Texas Concrete Company
Victoria, Texas

Corey Greika
Tindall Corporation
Conley, Georgia

- *Student Education Committee*

Gus Sulzer
SmartCAD
Littleton, Colorado

- *Technical Activities Committee*

Stephen P. Pessiki
Lehigh University
Dept. of Civil Engineering
Bethlehem, Pennsylvania

superior to the standard AASHTO beams. Art Anderson also clearly understood the benefits that could be derived from combining post-tensioning with pretensioned concrete girders. Lastly, and importantly, he appreciated fully well that research and development was a vital ingredient in the long-term success of the prestressed concrete industry. It was Art who formalized his company's reseach and development program in the early 1970s by establishing Concrete Technology Associates (CTA), a research organization jointly supported by several precast producers.

Steven Perry
Miami, Florida

TECHNICAL ACTIVITIES COMMITTEE NEWS

At the Technical Activities Committee meeting (**C. Douglas Sutton**, chairperson) in Puerto Vallarta, Mexico, January 19 to 21, the following actions and discussions took place:

- TAC discussed and approved for publication in the PCI JOURNAL (subject to technical and editorial revision), the following five committee reports:
  - "Recommended Practices and Procedures for the Erection of Vertical Litewalls with Corbels and Pocketed Spandrels" by Erectors Committee
  - "Recommended Practices and Procedures for the Erection of Vertical Litewalls with Corbels and Haunched Spandrels" by Erectors Committee
  - "Recommended Practices and Procedures for the Erection of Vertical Litewalls with Pockets and Haunched Spandrels" by Erectors Committee
  - "Recommended Practices and Procedures for the Erection of Horizontal Litewalls with Pocketed or Haunched Spandrels" by Erectors Committee
  - "User's Guide for Handling, Storage, and Erection of Prestressed Concrete Poles" by Prestressed Concrete Poles Committee
- At the same meeting, TAC approved a Certificate of Merit Award for the PCI Committee on High Performance Concrete (**Richard A. Miller**, chairperson). This committee had its report, "High Performance Concrete Showcase Bridges," published in the November-December 2001 PCI JOURNAL.
- The Standard Connection Manual, developed by the Connection Details Committee (**Jagdish Nijhawan**, chairperson), is going through final review and ballot by the committee prior to being submitted to TAC for final review and approval.
- The High Performance/Durability Concrete Committee (**Richard A. Miller**, chairperson) is currently developing a report on "Guidelines for the Production of High Performance Concrete." The committee is also active in planning presentations for the 2002 and 2003 PCI Conventions.
- The Prestressed Concrete Poles Committee (**Fouad H. Fouad**, chairperson) is developing a "Guide Specification for Prestressed Concrete Poles for Street Lighting Applications."
- **Brad Violetta**, director of marketing, Master Builders, Inc., gave a presentation to TAC on the Life-365 Service Life Prediction Model, a software program they are developing as part of an industry-wide consortium. It is expected that the final program will then be turned over to the American Concrete Institute's Strategic Development Council to develop a standardized service life prediction model for the entire concrete industry.
- **Donald C. Raths**, chairperson of the Professional Member Committee, announced that the inaugural issue of the Professional Member Newsletter is now available. This quarterly newsletter can be accessed on PCI's web site.
- The Parking Structures Committee (**Ted Wolfstahl**, chairperson) has been busy developing:
  - -A Maintenance Manual for Parking Structures
  - -Live load reductions
  - -Guidelines for warping of double tees
- The Hollowcore Slab Producers Committee (**Robert S. McCormack** and **Jeffrey Butler**, co-chairpersons) has been working with the Marketing Promotion Team and the Building Code Committee on fire issues relating to multi-family housing. This team effort will use local code efforts to encourage the use of non-combustible materials.
- The Precast Sandwich Wall Panels Committee (**Harry A. Gleich**, chairperson) has initiated a study to develop a simplified method for calculating the R-value of sandwich panels. This work is under way at Lehigh University and involves taking data from Department of Energy tests and creating a model that will duplicate those data. The committee is also working with the Industry Handbook Committee to expand and rewrite the section on sandwich wall panels in the Sixth Edition of the Design Handbook.
- The Seismic Committee (**Ned M. Cleland**, chairperson) is being used as a review group for the Seismic Design Manual. A first draft of this major publication is under way. One of the most important issues to be resolved is the design of precast concrete diaphragms.
- The Prestressed Concrete Piling Committee (**Don Theobald**, chairperson) is reviewing the proposed chapter on Piling for the Bridge Design Manual.
- The Prestressing Steel Committee (**Mark Moore**, chairperson) has been reviewing the second draft of technical materials for a training class on the testing of prestressing strand. This educational course is being developed by the committee to improve the overall quality level of testing of prestressing strand by companies and state agencies that provide this service.
- A Fast Team has been formed to develop interim production and quality control guidelines for the manufacture and use of self-compacting concrete by PCI Producers. The team is currently composed of members of the Technical Activities Committee, Plant Certification Committee and High Performance Concrete Committee. If you have a

technical background to contribute to this effort and would like to be involved, please contact **Mike LaNier**, Berger/ABAM Engineers, (206) 431-2300 or e-mail: lanier@abam.com.

R&D COMMITTEE NEWS

Summarized below are the proposed research programs for the year 2002 and beyond:

Research Programs for 2002

The PCI Board of Directors has approved a budget that will allow for all the proposed projects to be carried out during 2002. The proposed research program includes:

- Four Daniel P. Jenny Research Fellowships for 2002-2003 academic year at $15,000 each.
- Three high-priority projects on torsion design of concrete, volume change and development of proper design methodology for precast concrete diaphragms.
- A discretionary fund to investigate catastrophic events such as earthquakes, bridge collapses, and other projects of extreme emergency.
- Support and involvement as industry advisors in the codification process based on research coming out of the Advanced Technology for Large Structural Systems (ATLSS) program at Lehigh University and the Precast Seismic Structural Systems (PRESSS) research that has been carried out at various universities and research institutions across the United States.

In addition, PCI is actively involved in the following research programs:

- Development of Design Criteria for Headed Studs – Wiss, Janney, Elstner Associates, Inc.
- Improved Phi-factors for Precast, Prestressed Concrete – University of Michigan
- Development of Precast/Prestressed Concrete Research Database – Purdue University
- Performance of Precast, Prestressed Parking Structures During the Northridge Earthquake – University of Illinois at Urbana-Champaign

2002 COMMITTEE DAYS SCHEDULE

April 18-20, Embassy Suites, Chicago Downtown Lakefront
511 North Columbus Drive, Chicago, IL 60611
Phone: (312) 836-5900, Fax: (312) 836-5901

Date and Time	Committee/Event
Wednesday, April 17, 2002	
1:00 p.m. - 5:00 p.m.	PCI Education Foundation
Thursday, April 18, 2002	
8:00 a.m.	**Registration**
9:00 a.m. - 12:00 noon	Housing Segment
9:00 a.m. - 5:00 p.m.	Plant Safety
9:00 a.m. - 5:00 p.m.	Bridge Producers
9:00 a.m. - 5:00 p.m.	Industry Handbook
9:00 a.m. - 5:00 p.m.	Personnel Training & Certification
12:00 noon - 1:30 p.m.	**Luncheon**
1:00 p.m. - 5:00 p.m.	Allied Organization Directors (Closed)
1:30 p.m. - 5:00 p.m.	Hollow-Core Slab Producers
1:30 p.m. - 5:00 p.m.	Self-Compacting Concrete Fast Team
3:00 p.m. - 5:00 p.m.	TMRD Executive Committee
5:30 p.m. - 7:00 p.m.	**Cocktails**
6:00 p.m. - 9:00 p.m.	Bridge Manual (Closed)
Friday, April 19, 2002	
8:00 a.m.	**Registration**
8:00 a.m. - 11:45 a.m.	Professional Member
8:00 a.m. - 11:45 a.m.	Multi-Family Housing Fire Task Force
8:00 a.m. - 12:00 noon	Bridges-Subcommittees
8:00 a.m. - 5:00 p.m.	Bridges
9:00 a.m. - 11:45 a.m.	Seismic
9:00 a.m. - 11:45 a.m.	Publications
9:00 a.m. – 11:45 a.m.	ATLSS/PRESSS
9:00 a.m. - 12:00 noon	TAC Strand Task Group (Closed)
9:00 a.m. - 5:00 p.m.	Plant Safety
10:00 a.m. - 4:30 p.m.	Field Certification
12:00 noon - 1:30 p.m.	**Luncheon**
1:30 p.m. - 4:30 p.m.	Journal Advisory
1:30 p.m. - 5:00 p.m.	Building Code
1:30 p.m. - 5:00 p.m.	Student Education
1:30 p.m. - 5:00 p.m.	Prestressing Steel
1:30 p.m. - 5:00 p.m.	Soundwall
1:30 p.m. - 5:00 p.m.	Financial Performance/Contracts
5:30 p.m. - 7:00 p.m.	**Cocktails**
Saturday, April 20, 2002	
8:00 a.m.	**Registration**
8:00 a.m. - 12:00 noon	Productivity
8:00 a.m. - 12:00 noon	Prestressed Concrete Piling
8:00 a.m. - 4:00 p.m.	Bridge Deck Panel Task Force
8:00 a.m. - 5:00 p.m.	AASHTO T-10
8:00 a.m. - 5:00 p.m.	Plant Certification
9:00 a.m. - 11:45 a.m.	High Performance Concrete
9:00 a.m. – 11:45 a.m.	Parking Structures - Technical Group
9:00 a.m. - 11:45 a.m.	Precast Sandwich Wall Panels
9:00 a.m. - 4:30 p.m.	Erectors
9:00 a.m. - 5:00 p.m.	Connection Details
10:00 a.m. - 5:00 p.m.	Quality Control Ad Hoc
12:00 noon - 1:30 p.m.	**Luncheon**
1:30 p.m. - 5:00 p.m.	Prestressed Concrete Poles
1:30 p.m. - 5:00 p.m.	PCI 50th Anniversary
1:30 p.m. - 5:30 p.m.	Research and Development
2:30 p.m. - 4:00 p.m.	Younger Members (NEW)
5:30 p.m. - 7:00 p.m.	**Cocktails**
Sunday, April 21, 2002	
9:00 a.m. - 5:00 p.m.	CPCI TAC

RESEARCH PROPOSALS SOLICITED

PCI's Research & Development Committee (**Thomas J. D'Arcy**, chairperson) invites proposals for conducting research on "Development of Proper Design Methodology for Precast Concrete Diaphragms."

The objective of this research would be to develop an industry-endorsed recommended practice for the design and construction of diaphragms that use precast/prestressed concrete components. The practice would cover pretopped and topped diaphragms constructed using both double tee and hollow core units.

The proposals must be received at PCI Headquarters by **May 31, 2002.**

To obtain a copy of the Project Research Statement and RFP, contact PCI's Research Director **Paul Johal** at (312) 786-0300.

CALL FOR ENTRIES – ARCHITECTURAL STUDENT DESIGN COMPETITION

The PCI Student Education Committee (**Alvin C. Ericson**, chairperson) is inviting entries from architectural students to participate in a new PCI Architectural Student Design Competition for the year 2002. The awards program, sponsored by AXIM Concrete Technologies, Inc., will include cash prizes for the best design and several other categories. Deadline to submit projects is **August 16, 2002**. PCI Producer Members are urged to encourage their local architectural schools to participate in this program. For additional information, contact PCI's Research Director **Paul Johal** at (312) 786-0300, or Professor **Norm Lach,** Southern Illinois University at (618) 453-1128.

RESEARCH FELLOWSHIP PROPOSALS SOLICITED

Requests for proposals for 2002-2003 Daniel P. Jenny Research Fellowships have been sent out to the civil engineering departments of universities in the United States and Canada. PCI will offer several $15,000 awards for the academic year beginning September 2002.

Proposals must be received at PCI headquarters by **March 11, 2002.** Proposals will be initially evaluated by PCI's Research and Development (R&D) Committee (**Thomas J. D'Arcy**, chairperson) and the final selections will be made during PCI Committee Days, April 18-20, 2002.

The PCI Research Fellowship Program was established in 1972 to support graduate civil engineering students interested in research related to precast and prestressed concrete. Fellowships generally conclude with a master's degree thesis and a summary paper published in the PCI JOURNAL. For more information regarding the PCI Daniel P. Jenny Research Fellowship program, contact PCI's Research Director **Paul Johal** at (312) 786-0300.

CALL FOR NOMINATIONS – DISTINGUISHED EDUCATOR AWARD

The PCI Student Education Committee (**Alvin C. Ericson**, chairperson) invites nominations from PCI members for PCI's 2002 Distinguished Educator Award. The objective is to recognize distinguished educators in the fields of engineering, architecture and construction technology who have made significant contributions to the precast/prestressed concrete industry. Nominations must be received at PCI headquarters by **March 31, 2002**. For nomination forms and additional information, contact PCI's Research Director **Paul Johal** at (312) 786-0300.

CALL FOR NOMINATIONS – YOUNG EDUCATOR ACHIEVEMENT AWARD

The PCI Student Education Committee (**Alvin C. Ericson**, chairperson) invites nominations from PCI members for PCI's 2002 Young Educator Achievement Award. The objective is to recognize young educators in the fields of engineering, architecture and construction technology who have made significant contributions in their early careers to the precast/prestressed concrete industry. Nominations must be received at PCI headquarters by **March 31, 2002**. For nomination forms and additional information, contact PCI's Research Director **Paul Johal** at (312) 786-0300.

CALL FOR ENTRIES – ENGINEERING STUDENT DESIGN COMPETITION

The PCI Student Education Committee (**Alvin C. Ericson**, chairperson) is inviting entries from engineering students to participate in PCI's Engineering Student Design Competition for the year 2002. With the help of local PCI Producer Members, students will construct and test 8 x 10 in. x 14 ft (203 x 254 mm x 4.3 m) precast concrete beams. The awards program, sponsored by Sika Corporation, will include cash prizes for the most efficient design, highest load capacity, best report and other categories. Applications are due at PCI headquarters by **March 1, 2002** and results by **June 1, 2002.** PCI Producer Members are urged to encourage their local engineering schools to participate in this program. For additional information and application forms, contact PCI's Research Director **Paul Johal** at (312) 786-0300.

- Influence of Diaphragm Behavior on Performance of Precast Parking Structures During the Northridge Earthquake – Lehigh University
- ATLSS Research Programs – Lehigh University
- Several research projects to support code issues and PCI Standard Design Practice

New Top Priority Projects for 2002 and Beyond

Based on a survey conducted among PCI producer members to determine new high priority projects for funding in 2002 and beyond, the following three projects have been identified as those with the highest research priority:

1. Appropriate Torsion Design for Precast Prestressed Concrete Members
2. Predicting Volume Change Movements and Forces in Precast Concrete Structures
3. Development of Proper Design Methodology for Precast Concrete Diaphragms

Specific task groups have been formed to review and modify the research statements being prepared for these projects. These research statements will be used to solicit proposals. The projects are planned to be initiated this year.

Stud Project Nearing Completion at WJE

Researchers at Wiss, Janney, Elstner Associates have completed the first phase of a PCI sponsored project on "Design Criteria for Headed Stud Groups." The testing program included 328 shear tests on a variety of stud group configurations. Data analysis has been completed and the final report is being prepared.

Results indicate that the Concrete Capacity Design (CCD) approach proposed by ACI is conservative and, therefore, needs to be modified for an accurate prediction of shear strength. A paper titled "Design Criteria for Headed Stud Groups in Shear: Part I - Steel Capacity and Back-Edge Effects" was published in the September-October 2000 PCI JOURNAL. A final report on the entire Phase I program is expected to be available by March of this year. The second phase on combined shear and tension program is currently under way. The Project Advisory Committee met on August 7, 2001, at WJE headquarters to review progress and to witness some of the initial Phase II tests. The Phase II program is scheduled for completion by the middle of this year. A paper on the quality control of stud welding by **Harry Chambers** of Nelson Stud Welding, titled, "Principles and Practices of Stud Welding," was published in the September-October 2001 issue of the JOURNAL.

STUDENT EDUCATION

PCI's Initiative to Students

PCI has announced a new precast, prestressed concrete industry initiative, the Summer Intern Program, which provides a summer working experience for young engineers and architects in the precast, prestressed concrete industry. It is hoped that exposure to this program will guide students toward career paths in the precast, prestressed concrete industry.

In addition, a package has been sent to most civil engineering professors in the United States and Canada with information on the following programs:

- PCI Summer Intern Program
- Career Opportunities in the Precast Concrete Industry
- PCI Engineering Student Design Competition

These initiatives are being publicized to both Producer Member companies and to civil engineering faculty members of the United States and Canadian universities. Publications and brochures are available for distribution. Contact Paul Johal at PCI, Tel: (312) 786-0300; fax: (312) 786-0353.

RESEARCH PROPOSALS SOLICITED

PCI's Research & Development Committee (**Thomas J. D'Arcy**, chairperson) invites proposals for conducting research on "Predicting Volume Change Movements and Forces in Precast Concrete Buildings."

The research objectives include:

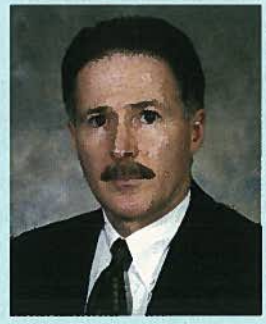
- Review the existing research data on how volume change movements and forces are currently calculated, and conduct in-situ measurements of actual precast buildings for comparison.
- Develop a more accurate calculation procedure, recommend spacing of expansion joints and expansion joint movement requirements in precast concrete buildings.
- Compare research findings to current methods of calculation based on the PCI Design Handbook.

The proposals must be received at PCI Headquarters by **March 31, 2002.**

To obtain a copy of the Project Research Statement and RFP, contact PCI's Research Director **Paul Johal** at (312) 786-0300.

Finsen Named New Executive Director of Georgia/Carolinas PCI

The Georgia/Carolinas Precast/Prestressed Concrete Institute (PCI) has named **Peter I. Finsen** as executive director. Mr. Finsen's responsibilities include administration of the non-profit trade association, promoting the use of plant-produced precast and prestressed concrete, and educating architects, engineers, owners, contractors and students to ensure industry growth throughout Georgia, North Carolina, and South Carolina.



Mr. Finsen has 25 years experience in the design and construction industry including project development services on over $6 billion in construction value of educational, correctional, housing, infrastructure and governmental projects. He most recently served in business development as principal, K-12 educational facilities for Jacobs Facilities' Eastern Region. Previously, he was senior vice president of The Facility Group in Smyrna, Georgia, where he served as director of sales for the education/public sector division. He also worked for 3D/International in Houston and Orlando as chief development officer and Heery International in Atlanta as business development manager.

Earlier in his career, Mr. Finsen spent 10 years as an architect with the Tennessee Valley Authority developing and promoting that agency's conservation and solar programs.

Mr. Finsen holds a master of architecture degree from the University of Pennsylvania, and has completed graduate course work at Arizona State University and Harvard University's Graduate School of Design. He has been active in several trade organizations including the Council of Educational Facility Planners International (CEFPI), National Association of State Facility Administrators (NASFA), Construction Management Association of America (CMAA), and the Society for Marketing Professional Services (SMPS).

Anderson Joins Goodkind & O'Dea

Goodkind & O'Dea, a leading civil, structural and construction engineering/inspection firm, recently named **Anne K. Anderson** as assistant branch manager of the Parsippany, New Jersey office. In her new position, Mrs. Anderson will assist in the office's administration and technical functions, in addition to enhancing capabilities in the municipal and land development markets. She will also serve as project manager for a variety of public and private projects. She earned a bachelor's degree in civil engineering from Lehigh University.

Girgis Wins PCA Bridge Design Award

Amgad F. Morgan Girgis, a doctorate student and graduate research assistant at the University of Nebraska, Lincoln, was named the winner of the 2001 Student Bridge Design Award Competition conducted by the Portland Cement Association.

Mr. Girgis won for his innovative approach to making prestressed concrete girders more economical for long spans. **Dr. Maher K. Tadros** and **Dr. Sameh S. Badie** provided guidance and supervised the project. Certificates of achievement will be presented to Mr. Girgis and Profs. Tadros and Badie. Mr. Girgis will also receive a cash prize of $2,500.

The purpose of the annual competition is to recognize excellence in concrete bridge design using AASHTO LRFD Bridge Design Specifications. All engineering undergraduate and graduate students enrolled in United States or Canadian Universities are eligible to enter the competition. For information regarding next year's competition, visit PCA's web site at www.portcement.org/br.

Tindall Names Boswell Sales Engineer

Charlie Boswell has been named sales engineer for Tindall's Atlanta Prestress Division and will work in the Conley, Georgia plant. His responsibilities include sales for the bridge and


A.F. Morgan Girgis


Charlie Boswell


Jeffrey L. Garrett


William M. Mitzo

transportation market in Georgia, Alabama, South Carolina, North Carolina, Tennessee, and the northern Alabama area. Mr. Boswell received his bachelor's degree in industrial engineering from the Georgia Institute of Technology. He is a member of the Institute of Industrial Engineers.

Garrett Joins Construction Technology Laboratories

Jeffrey L. Garrett has joined Construction Technology Laboratories, Inc., Skokie, Illinois as senior principal structural engineer in the structural engineering group. Mr. Garrett holds a bachelor's degree in architecture and a master's degree in structural engineering from Iowa State University. He is completing his research and dissertation for a doctorate in structural engineering from Iowa State University. Mr. Garrett comes to CTL from Exponent Failure Analysis Associates, Inc., where he served as a senior managing engineer in Chicago, Illinois.

Mitzo Joins Tilden Lobnitz Cooper

William M. Mitzo has joined the structural division of Tilden Lobnitz Cooper (TLC) in Orlando, Florida as a senior structural engineer. With more than 25 years experience, he has an extensive design background including cast-in-place, precast/prestressed, and post-tensioned concrete structural systems. His portfolio includes high-rise buildings, resort hotels, county courthouses, educational facilities, and parking garages. He is a graduate of the University of Miami.

New 15 Inch XL Anchor and Shear Studs Available From Nelson

Nelson Stud Welding, Elyria, Ohio, has announced the availability of 15 in. (381 mm) long cold-formed stud-welded headed anchors and shear connectors. The extra length and cold forming are designed to provide advantages of lower production costs, reduction in piggybacking of studs, and shorter lead times.

5th International Conference on Multipurpose Highrise Towers and Tall Buildings

The Fifth International Conference on Multipurpose Highrise Towers and Tall Buildings has been scheduled for August 26-28, 2002 at the Sunway Lagoon Resort Hotel, Kuala Lumpur, Malaysia. For more information, contact H. R. Viswanath, President of IFHS; phone 91-80-6603857; fax 91-80-6600440; e-mail: hrviswas@vsnl.net.

New York Symposium on Future High-Rise Construction

Almost immediately after the attacks of September 11, members of the construction industry — as well as millions of others in the United States — began asking the question: how do we build safer buildings?

"Building a Safer, Stronger New York City," hosted by the New York City Concrete Promotion Council, took place at the New York Athletic Club December 13. Carmine Attanasio, chairman of the Council's High-Rise Committee, directed the panel of public and private sector experts from the construction and real estate industries.

From left to right are George Fischer, NAE chairman, **Gene Figg**, Figg Engineering Group, and **Bill Wulfe**, NAE president.

Gene Figg Inducted into National Academy of Engineers

Eugene (Gene) C. Figg, Jr., president, CEO, and director of bridge art for Figg Engineering Group, was inducted into the prestigious National Academy of Engineering (NAE) on October 7, 2001, "for leadership in design excellence, structural innovation and efficient construction of major bridges."

The NAE elected 74 engineers, including Mr. Figg, and eight foreign associates to its membership in February 2001, bringing the total United States membership to 2,061 and the number of foreign associates to 154. Mr. Figg is one of only 76 structural engineers currently in the NAE. The formal ceremony for the new inductees was held at the Academy's building in Washington, D.C.

Election to the NAE is among the highest professional distinctions accorded to an engineer. Academy membership honors those who have made "important contributions to engineering theory and practice, including significant contributions to the literature of engineering theory and practice," and those who have demonstrated "unusual accomplishment in the pioneering of new and developing fields of technology."

The panel included a special presentation by Professor Oral Buyukozturk, Distinguished Professor, Massachusetts Institute of Technology I-Center for Infrastructure Science and Technology, who spoke about innovations in concrete technology for use in high-rise construction. Professor Buyukozturk stressed the need for the use of materials, like concrete, that better absorb energy and offer redundancy for new designs.

Another important participant on the panel was **Joseph Russo**, former captain, Fire Department of New York, now director, Center for Fire Safety Engineering, Polytechnic University. Mr. Russo concurred with the professor on the advantages of concrete and drew on more than 30 years of experience in the fire department to discuss how fire safety issues need to be approached differently. He advocated the need for involving the safety community early on in the design phase of a building, emphasizing that an early partnership is the best way to build better buildings.

An audience of primarily engineers, contractors, material suppliers, owner/developers, and architects attended the symposium. Representatives from the Port Authority of New York and New Jersey and the Trump Organization also were present.

For more information on this and future events, contact either of these individuals:

- Carmine Attanasio, Lehigh Portland Cement Co., and Chairperson, High-Rise Committee of the NYC Concrete Promotion Council: (610) 331-8582.

- David Fanella, Manager, Buildings – Engineered Structures, Portland Cement Association: (847) 966-6200; e-mail: dfanella@portcement.org.

New Contracts Won by High Concrete

High Concrete Structures, Inc. of Denver, Pennsylvania has announced three new parking structure contracts:

- Riverview Corporate Park Parking Structure in Trenton, New Jersey; a four-level, 215,000 sq ft (19,973 m^2) parking deck. The precast concrete contract value is approximately $4.6 million.
- 401 Plymouth Road Parking Structure in Plymouth Meeting, Pennsylvania; a 700-car, 186,000 sq ft (17,279 m^2) parking structure. Contract value is approximately $3.5 million.
- Wyeth Ayerst Parking Structure in Collegeville, Pennsylvania; a three-level, 208,700 sq ft (19,388 m^2) parking structure. Contract value is approximately $3.3 million.

Finley McNary Named One of the Best CE Firms

Finley McNary Engineers, Tallahassee, Florida, was recently recognized by *CE News* as one of the ten best civil engineering firms to work for. Finley McNary was noted for its generous benefits, open-book management style, company-sponsored activities, and other innovative approaches to human resources.

In September 2001, Parsons Transportation Group acquired Finley McNary, and their staff has been integrated into Parsons' newly formed Bridge and Tunnel Division. The new 350-employee division is led by former Finley McNary President **R. Craig Finley, Jr.**

Walker Parking and Hill Cannon Form Alliance

Walking Parking Consultants, Chicago, Illinois, has forged a business alliance with the United Kingdom-based traffic engineering and parking consultant, Hill Cannon, to offer innovative American solutions to the growing traffic problems of Europe.

Many European city centers are becoming traffic nightmares for commuters and tourists. Too many cars, too few parking spaces and unsafe and inefficient car parks in dire need of major structural repair have presented municipalities, developers and architects with numerous challenges.

Operating under the name Hill Cannon & Walker, the two companies have pooled their traffic expertise to produce sound, innovative engineering designs and parking strategies to help Europe's municipalities forge ahead with efficient parking schemes to stimulate commerce. This new parking consultancy offers European clients a single-source, multi-discipline engineering firm dedicated to all aspects of parking from planning and design to construction, inspection and restoration of multi-level parking structures — services not previously available in the European community.

Blakeslee Completes Two Parking Structures at Bradley International Airport

Blakeslee Prestress, Inc., Windsor Locks, Connecticut, has been contracted as part of a design-build team by the Connecticut Department of Transportation. Blakeslee has completed the first phase of a construction project for parking structures and an administrative office building for the Bradley International Airport. The second phase will be completed by the spring of 2002.

Portland Cement Association's Education Foundation

The Portland Cement Association (PCA) has established a new foundation to help finance education pro-

grams in nearly every facet of the cement and concrete industries, from university research fellowships to career recruitment and craft training. The Education Foundation Board of Directors met for the first time on November 11, 2001, in conjunction with PCA's fall meeting. For more information, contact James F. Rappel (jrappel@portcement.org) or Richard P. Bohan (rbohan@portcement.org).

Hollow-Core Slabs Help Contain Dormitory Fire

Prestressed concrete hollow-core slabs and loadbearing concrete masonry walls are credited with containing a fire and allowing all residents to evacuate safely from a Hobart College dormitory in Geneva, New York. The four-story structure, named Rees Hall, is part of a three-dormitory complex that was constructed in 1969. It is believed that the prestressed hollow-core slabs were fabricated by the Winkrete Corp. in Syracuse, New York, a company that is no longer in business.

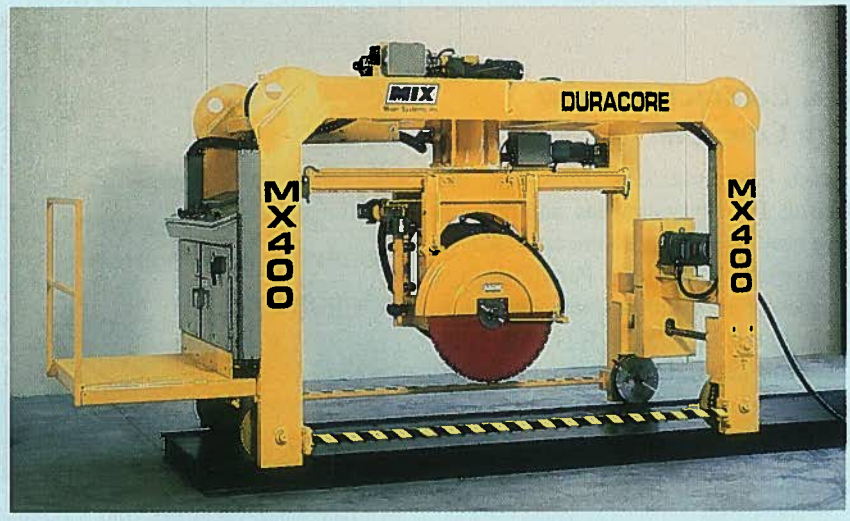
The fire was contained in a first-floor room where it started and caused smoke and water damage in other parts of the dormitory. The heat's intensity lifted floor tiles from the floor of the room above. Officials have estimated that temperatures reached 1800°F. The prestressed 8 in. (203 mm) thick hollow-core slabs sustained only minor longitudinal cracking.

The slabs and walls are credited with minimizing damage so that rooms could be cleaned and refurbished in record time. Students from the upper floors of the dormitory were allowed to return in less than two days after the fire. The first floor was refurbished in less than one month.

Spancrete Spans to California

Spancrete Machinery Corporation, Waukesha, Wisconsin, has sold a Spancrete GT 240 precast, prestressed concrete system to Kie-Con, Inc., a division of Kiewit Pacific Company, in Antioch, California. The system was delivered in January, with production of 8 ft (2.4 m) wide Spancrete hollow-core floor slabs already under way.

Mixer Systems Multi-Angle Hollow-Core Saw



Mixer Systems, Inc., Pewaukee, Wisconsin, has created the DuraCore MX 400 multi-angle saw, for cutting hollow-core panels. The saw runs on the casting bed and is designed to increase productivity in the hollow-core manufacturing process. The saw is self-propelled and has a travel speed of 90 fpm between cuts. It makes accurate rip cuts, cross cuts and angle cuts to 45 degrees in either direction and features automatic saw angle positioning. A 60-hp TEFC motor powers the cutting blade. A metered saw speed control is provided to increase blade life and prevent blade jamming. The saw has the capacity to cut panels 48 in. wide by 12 in. thick (1219 x 305 mm). A mechanical stop for blade down protects the casting bed.

The entire cutting process is controlled with a programmable logic controller from the console. The operator's station offers easy visibility of all operations. Because the saw runs on the casting bed, there is no need to move cured panels to a different location for cutting. It is also balanced for ease of movement between casting beds. A powered electric cable reel and powered hose reel are available as options.

Kie-Con plans to produce wall panels with the new system as well. While new to the hollow-core business, Kie-Con has been serving northern California in the precast concrete industry for 20 years.

fib Symposium on Concrete Structures in Seismic Regions

The Technical Chamber of Greece, national member group of the International Federation for Structural Concrete (*fib*), announces the *fib* symposium, "Concrete Structures in Seismic Regions" for May 6-9, 2003, to be held in Athens, Greece. This symposium is supported by the International Association for Bridge and Structural Engineering (IABSE).

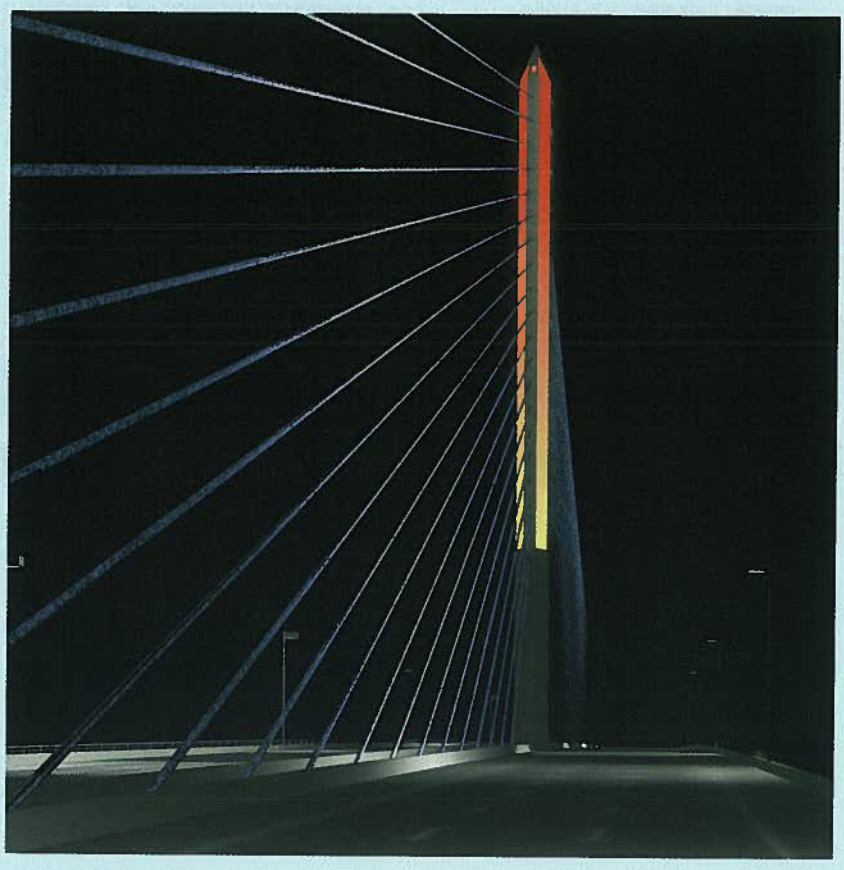
Interested authors are invited to submit an abstract electronically by April 15, 2002, to the Symposium Secretariat, e-mail: oc2003@fib2003.gr.

For information about the conference scope and details, please visit the conference web page on the Internet at http://www.fib2003.gr.

fib Symposium Berlin 2001: Concrete and Environment

The *fib* Symposium 2001 took place in Berlin, Germany from October 3-5, 2001 and brought together 300 participants from 35 countries. PCI President

Figg Designs New Cradle System for Ohio Bridge



Figg Bridge Engineers, Inc., Tallahassee, Florida, has designed a new cradle system for cable stayed bridges that eliminates the need for pylon cable anchors and allows for a slender and aesthetically pleasing pylon design.

In the new system, a continuous cable stay runs from the bridge deck, through the cradle at the top of the pylon, and back down to the bridge deck. The cables are high strength steel encased in stainless steel sheathing. On the Maumee River Crossing project in Ohio, each strand passes through its own individual stainless steel tube in the cradle assembly.

Cable sizes for the project vary from 82 to 156 epoxy-coated strands (the largest of any bridge) and are reported to be the largest in the world. Pre-qualified contractors bid the project on January 17, 2002. The Ohio Department of Transportation (ODOT) pre-purchased the complete stay cable system from DSI Corporation, including all strands, anchors, sheathing and miscellaneous components. The pre-purchased material will be provided to the successful contractor for use during construction.

Construction Technology Laboratories (CTL) of Chicago, Illinois, performed extensive axial testing, combined axial/flexural testing and individual strand testing on the system. The strands and the cradle system passed the trials successfully.

The signature landmark bridge will carry six lanes of traffic on I-280 in Toledo and bear an estimated construction cost of $240 million. It is scheduled for completion in 2006.

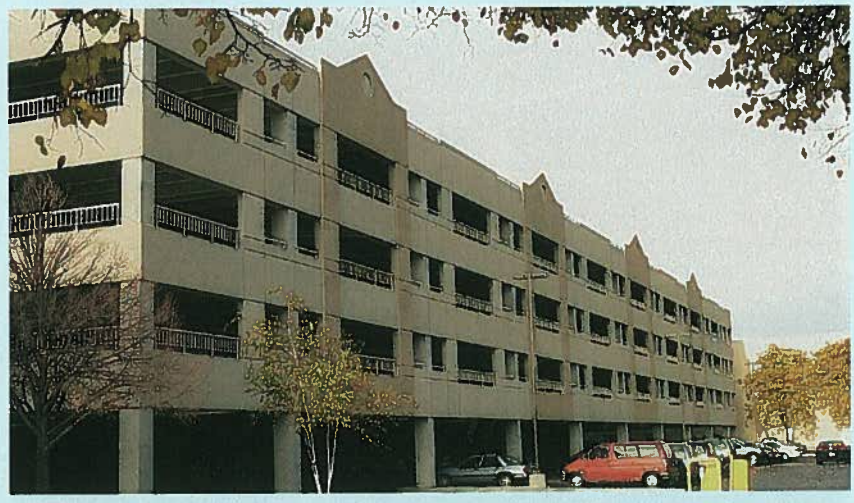
Thomas B. Battles represented PCI at this conference.

The proceedings of the symposium (144 pp., 67 two-page abstracts, plus one CD with all papers in full length) are available from dbv (e-mail: dbv.berlin@t-online.de) for EUR 45.

Errata

County Concrete Corporation, Marathon, Wisconsin, has added 10 and 20 in. (254 and 508 mm) sizes to its hollow-core line, rather than 10 and 12 in. (254 and 304 mm) sizes as reported in the November-December PCI JOURNAL, p. 131.

Spancrete Supplies Precast Concrete for Pine Street Parking Structure



Spancrete Industries, Inc., Waukesha, Wisconsin, provided a full range of structural and architectural precast, prestressed concrete products for the 191,000 sq ft (17,700 m²) Pine Street parking structure in Green Bay, Wisconsin. The structure serves downtown Green Bay and will accommodate approximately 475 vehicles.

Spancrete produced over 155,000 sq ft (14,400 m²) of double tees and wall panels along with 3000 ft (910 m) of beams and columns to serve as the primary structural elements for this parking structure. Additionally, 30,000 sq ft (2800 m²) of loadbearing and non-loadbearing spandrels, shear/stair walls, stairs and plank were also used for the structure.

Nitterhouse Brings Outdoors in to 1000 Chesterbrook Boulevard

The task of designing an 180,000 sq ft (16700 m^2) office building on an awkwardly shaped site in Berwyn, Pennsylvania, fell to David F. Ertz, partner with Cope Linder architects of Philadelphia. Precast concrete panels fabricated by Nitterhouse Concrete Products, Inc., contributed to a natural appearance.

"The site was hemmed in by a highway on one side and a heavily used road on the other. We didn't want the building to be surrounded by parking and roads, so we used the large footprint to create a series of garden spaces somewhat sheltered from the other elements," said Ertz.

The panel detailing in the garden areas featured a combination of medium sandblast, exposed aggregate and rock-faced panels created with special form liners at the Nitterhouse plant. The rock-faced panels helped break up the horizontal mass of the three-story structure.

Ertz added, "The owner and developer, Realen Properties and Brandywine Realty Trust, wanted a high end look. We selected precast concrete because it is a high quality material. It also allowed us to use the larger scale elements with very fast erection and good quality control." The project used 219 precast concrete spandrels and 70 column covers.

The finished project is striking. It features bluestone paving that extends from the garden forecourt through the lobby of the U-shaped building and out the back to an informal garden. Originally developed as a spec building, 1000 Chesterbrook Boulevard is now the executive headquarters of the Provident Mutual Insurance Co.

Gate Leads Historic Preservation with LaSalle Building

Many historic structures on the Louisiana Capitol grounds are being preserved by Gate Precast Company, headquartered in Monroeville, Alabama. Baton Rouge's Capitol Park Plan – formerly called the Capitol Complex Expansion Plan – is coming to fruition after more than 30 years of developing groundwork. While many projects are under construction, Governor Mike Foster said the current downtown growth is the result of planning and hard work and that the plethora of projects will ultimately save the state money. The overall plan uses existing features of this city, such as the Capitol Gardens and land near the Mississippi River, which is sanctioned for a park.

Raymond (Skipper) Post of Post Architects, Baton Rouge, is responsible for the project's master plan. "Although the Capitol has a limestone veneer," Post said, "precast concrete is the substitute for the buildings currently under construction." The structures needed to match the architectural character of the center of the state's government, which is clad with Rockwood, Alabama, limestone. Precast concrete was chosen because it is thinner and lighter than the limestone, and architectural details can be added with minimum cost.

Photo courtesy of Charles Breard Photography.

In 1997, Eskew + Architects was selected to design the first office building, the West Building, now named the Louisiana State Capitol Park LaSalle Office Building. The building is named after Robert de LaSalle, the French trader who discovered the mouth of the Mississippi River and named the territory Louisiana. Eskew + Architects teamed up with Chenevert-Songy-Rodi-Soderberg to serve as architects. The LaSalle Building will house 1,050 employees of the State Departments of Revenue and Natural Resources. The contractor for this $31 million project is The Lemoine Company. Project engineer Mike Lemoine said that work began in 1999 and that the 362,000 sq ft (33,630 m^2) structure was completed in the fall of 2001. Lemoine said, "The building's structure consists of structural steel, with a shear wall up the center of the building."

Architectural precast concrete was chosen for the exterior skin because of its ability to simulate limestone. Gate produced the precast concrete for the 12-story LaSalle Building. Lightly sandblasted precast panels speeded construction and proved more economical than natural limestone. The projected savings for the construction of this structure, when compared to rental costs, is estimated to be $130 to $160 million during the first 40 years of the new building's life.

Gate has also been awarded other projects within the Capitol Park Plan. They produced the precast concrete for the eight-story Claiborne Building and will also do so for the Claiborne parking structure. Other Gate projects will be the 12-story Galvez Building and six-level parking structure as well as the Department of Justice Building.

PCI REGIONAL MARKETING ASSOCIATION DIRECTOR

The Precast/Prestressed Concrete Institute, Central Region (Ohio, Indiana and Kentucky) is searching for a full time executive director to be located in either Ohio or Indiana.

Candidate will develop and coordinate promotional and marketing programs for the precast concrete industry in Ohio, Indiana and Kentucky. Marketing activities will be directed to architects, engineers, educators, builders and owners.

The ideal candidate will have an architectural, engineering or marketing/communications related degree, some construction or related industry experience, outstanding communication and presentation skills, computer proficiency and the ability to represent the precast concrete industry in a professional manner.

The successful candidate will be responsible to a steering committee comprised of producer members of the association.

This opportunity provides a competitive compensation and benefits package, including pension. Interested candidates should send their resume and salary requirements to:

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Fabcon Celebrates 30th Anniversary

Fabcon, Inc., of Minneapolis, Minnesota is celebrating 30 years of producing precast concrete wall panels. In 1971, **Dave Hanson**, president, co-founded Fabcon with **Gerry Rauenhorst**, a commercial building contractor who was unsatisfied with local precast producers. Mr. Rauenhorst opted for a Spandeck product franchise, incorporating the rolling bed and stationary casting technology to fabricate premium hollow-core wall panels. Thus, Fabcon became one of the original companies to brand a prestressed hollow-core wall panel.

As business grew, Fabcon purchased the Spandeck franchise in 1986, expanding again in 1995 with the acquisition of American Precast plants in Ohio [two 800 ft (244 m) beds] and Indiana [two 600 ft (183 m) beds]. In 2000, a fourth plant [with twin 800 ft (244 m) beds] was erected near Allentown, Pennsylvania, further increasing the company's capacity. Between the plants and sales offices, Fabcon serves the Northeast, Mid-Atlantic and Midwest United States markets.

Key to Fabcon's solid growth is the pursuit of quality and energy-efficient technology. Fabcon is PCI and ISO 9001 certified for each of its four production facilities and is one of the few concrete producers to complete audits leading to the ISO 9001 mark.

The company produces non-composite precast sandwich wall panels composed of an 8 in. (203 mm) layer of concrete, a 2.5 in. (64 mm) layer of foam, and a 1.5 in. (38 mm) layer of concrete. Fabcon's non-composite panels combine a structural core, a rigid insulation layer, and a non-structural façade for greater strength without a thermal bridge.

Fabcon recently completed its 6,000th precast project. It took the company 22 years to sign the first 3000 jobs and within the last eight years, 3000 more have been signed.

Glendale Commerce Center, Glendale, Wisconsin. This structure displays the widest spectrum of finishes, aggregates, patterns, tints, graphics and decorative banding offered by Fabcon.

Dave Hanson, co-founding president

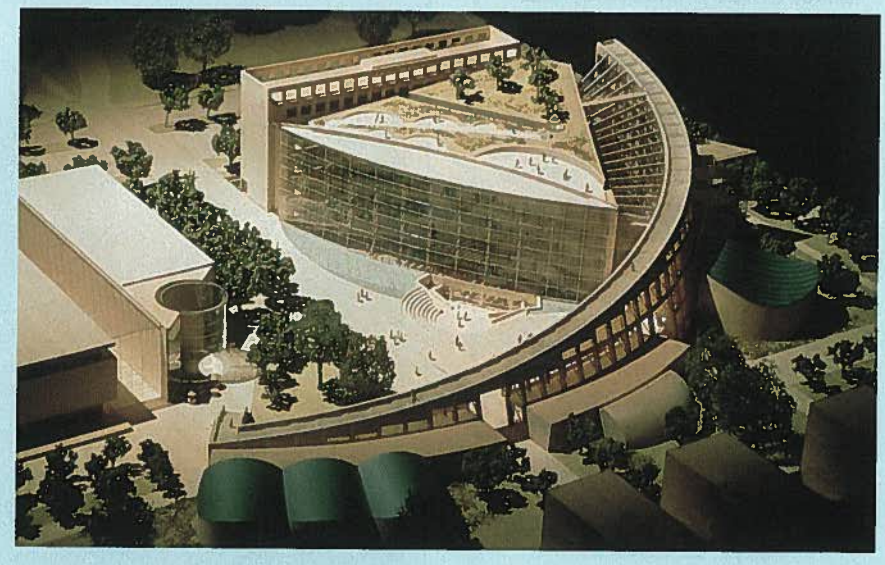
Michael L. LeJeune, president/CEO

Schwieters Construction Park, Hugo, Minnesota. The project utilizes Fabcon's insulated loadbearing panels for maximed energy efficiency of the facility.

Boral Micron³ Chosen for Salt Lake City Library

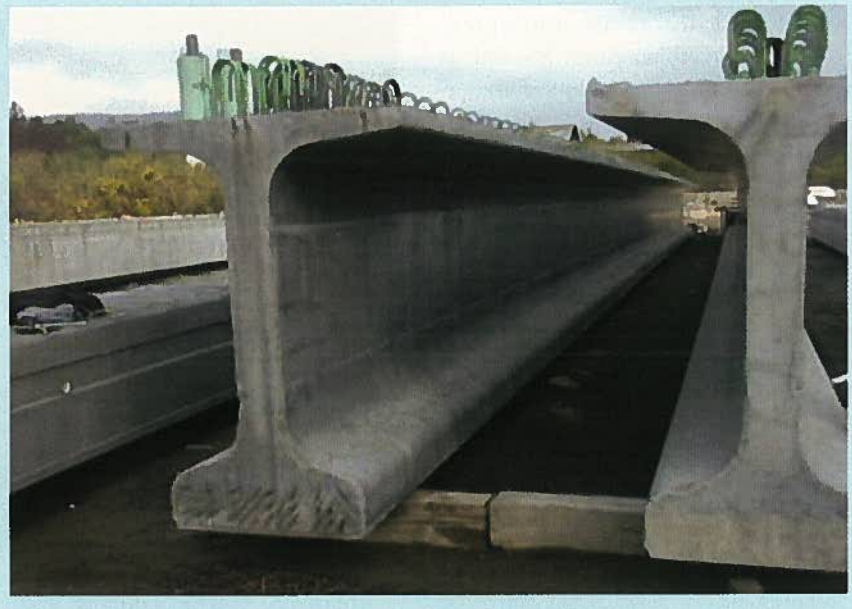
Boral Material Technologies' ultra-fine pozzolan Boral Micron³ is being used in its first major commercial application in the construction of Salt Lake City, Utah's new Main Public Library. Like silica fume, Boral Micron³ is used to achieve high durability, high strength concrete, yet it is lighter and requires less high range water reducer (HRWR) than silica fume.

The exposed concrete surfaces in the library project challenged suppliers and contractors to look beyond past concrete experience and consider every variable affecting interior and exterior concrete quality. The project had column and beam design strength requirements of 8000, 6000, and 5000 psi (55, 41, and 34 MPa), along with 4000 psi (28 MPa) lightweight slab concrete mixes.



Architects Moshe Safdie & Associates desired that all finished concrete surfaces be uniform in color and texture when viewed from a distance of 3 ft (0.9 m). Their specification called for color matching between the concrete mixes of different strengths.

Bulb Tee Girders with HPC Cast for NYSDOT Bridge



The first bulb-tee girders with high performance concrete (HPC) for a NYSDOT project have recently been cast and installed for a replacement bridge located on Route 89 over Glenwood Creek in Tompkins County, New York. The six girders are a standard NEBT 55 in. (1400 mm) deep section, with a 105 ft (32 m) span. The girders were cast in accordance with a new specification 718-47, High Performance Concrete for Precast and Prestressed Bridge Elements, specifying 70 MPa (10 ksi) compressive strength at 56 days, as well as minimum criteria for other properties, including freeze/thaw durability, scaling, elasticity, shrinkage, creep, chloride penetration, air content and water-cementitious material ratio. A rigorous pre-production testing procedure of the mix design is required for all precast plants to qualify for producing HPC bridge members. The L.C. Whitford Co., Inc., Wellsville, New York, is the only plant which has completed the procedure.

PCI DIRECTOR OF CERTIFICATION PROGRAMS

The Precast/Prestressed Concrete Institute is seeking an individual to serve on staff in Chicago as Director of Certification Programs.

The successful candidate will administer PCI's diverse plant, personnel and field certification programs. It is preferred that the candidate have experience in precast concrete products and construction quality control.

The applicant must have public speaking ability, function well within the technical side of the industry and have excellent organizational and administrative skills along with the ability to write clearly and concisely. A degree in civil or construction engineering is desirable.

Send resume in confidence to: President, Precast/Prestressed Concrete Institute, 209 West Jackson Boulevard, Suite 500, Chicago, IL 60606.

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PTAC Consulting Engineers is searching for precast/prestress CAD operators/detailers to fill immediate openings. Excellent compensation package and working environment.

For more information or to apply, contact Barry McKinley (850) 432-8446 or e-mail barry@ptac.com.

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Respond to Mr. Ned Piccinini, at National Precast, Inc., 30066 Little Mack, Roseville, Michigan 48066. Phone: (810) 294-6430; Fax: (810) 294-6527; e-mail: fibrahim@national-precast.com.

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CIVIL ENGINEER

Our client is a $100M+ leading manufacturer of concrete structures used for parking decks and is currently looking for a civil engineer. Requirements: Bachelor of science in civil engineering, 5+ years experience in precast/prestressed concrete design in a manufacturing environment, EIT preferred. Contact Robin Liang at (678)287-2029 or e-mail: rliang@belloaks.com.

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