LETTERS TO THE EDITOR

Kudos for July-August JOURNAL Issue

The July-August Special Convention Issue of the PCI JOURNAL was particularly outstanding because it contained something for everybody. A few examples:

- Precast modular construction — This efficient, versatile and cost effective method of building structures should become the dominant method in the construction of housing, prisons, schools and many other types of structures. (See article on "Precast Concrete Modules Speed School Construction.")
- Rehabilitation of buildings — As our urban infrastructure ages, the facades and interiors of buildings will need renovation. There is no better material than architectural precast concrete (in its many variations) to use in renovating these old structures. (See article on "Brick-Faced Precast Concrete Panels Help Rehabilitate Allen Theatre")
- High performance concrete — It is becoming increasingly apparent that a solution is needed to lower the high cost of maintenance and replacement of our nation's bridges and support structures. High performance concrete, in the form of precast and prestressed concrete, is an obvious means to decrease costs by increasing the durability and longevity of bridges, while at the same time producing a more efficient bridge structure. (See article on "High Performance Concrete Extends Life of Charenton Canal Bridge" and "Analysis and Structural Benefits of High Performance Concrete for Pretensioned Bridge Girders.")
- Urban transportation — Precast and prestressed concrete plays a significant role in congested cities which need a major overhaul in their urban transportation system as is evidenced in Boston's "Big Dig" project. (See article on "Central Artery/Tunnel Project: Innovative Use of Precast Segmental Technology.")
- Architectural precast concrete — Stone veneer-faced precast concrete is yet another effective variation of architectural precast concrete. The article, "Stone Veneer-Faced Precast Concrete Panels" provides state-of-the-art information on the many applications of this versatile product.
- Problems & Solutions — Fire resistance and sound attenuation of precast/prestressed concrete products are important issues to architects, engineers and producers (p. 108).

John Baxter
Baltimore, Maryland

High Performance Concrete

What I liked the most about the article ("High Performance Concrete Extends Life of Charenton Canal Bridge," July-August PCI JOURNAL) is that it not only presented the structural benefits in using high performance concrete but it also discussed the details and precautions needed in producing this material.

Henry Smith
New Orleans, Louisiana

Modular Construction

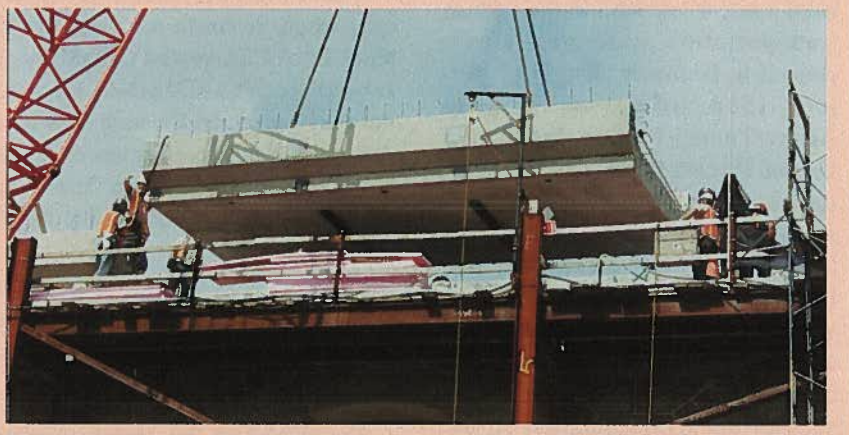
The article on the design-construction of the Josiah Quincy Upper School ("Precast Concrete Modules Speed School Construction," July-August PCI JOURNAL) provided valuable information on the structural details and economic advantages in using precast modular construction. This construction method has great potential not only for schools but many other

CALL FOR ENTRIES — ENGINEERING STUDENT DESIGN COMPETITION

The Student Education Committee is inviting entries from engineering students to participate in a new Engineering Student Design Competition for the year 2001. With the help of local PCI Producer Members, students will construct and test 6 x 12 in. x 15 ft (152 x 305 mm x 4.6 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 by **December 31, 2000** and results by **April 1, 2001** at PCI headquarters. PCI Producer Members are urged to encourage their local engineering schools to participate in this program. For additional information and an application, contact PCI Research Director, **Paul Johal**, at (312) 786-0300.

CALL FOR NOMINATIONS — DISTINGUISHED EDUCATOR AWARD

The PCI Student Education Committee (Alvin C. Ericson, chairman) invites nominations from PCI members for PCI's annual 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 10, 2001. For nomination forms and additional information, contact PCI's Research Director, Paul Johal, at (312) 786-0300.



Precast concrete beams are a key feature in the rehabilitation of a historic viaduct in Canton, Massachusetts. Northeast Concrete Products, Plainville, Massachusetts, provided the precast concrete beams for the historic viaduct. The structure can now carry high-speed rail traffic it has been unable to do since it was originally built in 1835. Project engineers chose precast concrete for its structural soundness and also because precast concrete allowed the structure to be built in phases so that rail traffic was not interrupted. Recently, Northeast Concrete won national awards from the Associated Building Contractors and the Portland Cement Association for its work on the viaduct.

types of applications. Congratulations to the authors for a very fine article.

John Alexander
Philadelphia, Pennsylvania

TECHNICAL ACTIVITIES COMMITTEE NEWS

The Technical Activities Committee (TAC) (**C. Douglas Sutton**, chairman) met Tuesday afternoon, September 26, at the PCI Convention in Orlando, Florida. The following is a summary of the topics discussed and actions taken:

- **Walter Korkosz** of The Consulting Engineers Group (Texas) has been appointed chairman of the Parking Structures Committee. He replaces **Ted Wolfsthal**, who has been chairman of this committee for the last several years.
- **Don Theobald** of Gulf Coast Prestress Inc., has been appointed chairman of the Prestressed Concrete Piling Committee. He replaces **Bill Wieners** who has chaired this committee during the last few years.
- The first part of the PCI-sponsored investigation on Headed Studs, being carried out by Wiss, Janney, Elstner Associates, has been approved for publication and appears in this current issue of the PCI JOURNAL. The report is titled "Design Criteria for Headed Stud Groups in Shear: Part 1 – Steel Capacity and Back Edge Effects."
- The Bridges Committee (**Roy Eriksson**, chairman) held a full-day meeting. Among the topics discussed were:
  - Extending span ranges of precast, prestressed concrete bridges.
  - Further collaboration with the Federal Highway Administration regarding high performance concrete, strand bond development length, increasing speed of erection and other advanced technologies.
  - Completing Volume 2 of the PCI Bridge Design Manual.
- The PCI Connections Committee (**Jagdish C. Nijhawan**, chairman) reviewed the editorial subcommittee's comments on the Standard Connections Manual from both a technical and format standpoint. A

revised text is to be completed this winter with plans to formally submit the Connections Manual to TAC in the middle of 2001.

- The High Performance Concrete Committee (**Richard A. Miller**, chairman) reviewed TAC's comments on its report, "High Performance Concrete Showcase Bridges." An updated version of the report is currently being worked upon by **Henry Russell**. The final submission of the report is expected early next year for publication in the PCI JOURNAL.
- The Prestressed Concrete Piling Committee (**Don Theobald**, chairman) is developing a chapter on piles for the PCI Bridge Design Manual as well as planning the development of a Pile Design Manual.
- The Prestressed Concrete Poles Committee (**Fouad H. Fouad**, chairman) had a productive meeting discussing a wide range of topics. Currently, the committee is reviewing the report, "Guide for Handling and Erection of Prestressed Concrete Poles," which it expects to submit to TAC next year. The committee is also working on two other documents:
  - Guide Specification for Prestressed Concrete Poles for Streetlighting Applications
  - Specification Guide for Prestressed Concrete Poles
- The Seismic Committee (**Ned M. Cleland**, chairman) is working on the development of a chapter on seismic design considerations and connections for the next sixth edition of the PCI Design Handbook.
- The Hollow Core Slab Producers Committee (**Robert McCormack** and **Jeffery Butler**, co-chairmen) had a joint meeting with the International Prestressed Hollow Core Association. A major topic of discussion centered on fire ratings for restrained and unrestrained hollowcore slab floors.
- **Kenneth Baur** reported on the initiative being made by CPCI (Canadian Precast/Prestressed Concrete Institute) to develop a standard program to integrate software for the precast concrete industry in North America. An initial meeting, titled "Creating a Digital Building Product Model for the Precast, Prestressed Concrete Industry," was held September 8 and 9 in Toronto, Ontario. The purpose of the meeting was to outline the steps and cost needed to undertake such a program.
- The manual, Precast Prestressed Concrete Parking Structures: Recommended Practice for Design and Construction is now available on a CD ROM.
- The Professional Member Committee (**Donald C. Raths**, chairman) has developed an attractive promotional brochure on the benefits of being a PCI Professional Member.

R&D COMMITTEE NEWS

The R&D Committee (**Thomas J. D'Arcy**, chairman) met during the PCI Annual Convention/HPC Symposium in Orlando, Florida, to discuss the status of various research projects. These projects included many fellowships and research projects on composite behavior of insulated precast concrete wall panels, design criteria for headed stud groups, strand development length, and discussion of a high priority project on development of design factors for precast concrete elements connected with dry joints expected to be initiated next year.

Additional research funded and monitored by the R&D Committee includes projects on the behavior of spandrel beams under torsion, shear key connections for adjacent box girder bridges, precast, prestressed shear walls with large openings, and studies of parking structures associated with their performance during recent earthquakes.

The Ad Hoc Committee on ATLSS and PRESSS (**Mario J. Bertolini**, chairman) reviewed the status of various major projects being carried out under the ATLSS (Advanced Technology for Large Structural Systems), PRESSS (Precast Seismic Structural Systems) and NIST (National Institute for Standards and Technology) research programs.

Several research programs are planned for 2001 — four research fellowships; a new project on development of design factors for dry precast concrete connections; a discretionary fund to investigate catastrophic events (such as an earthquake or bridge collapse) or other projects of extreme emergency in which precast or prestressed concrete is involved; and support and involvement as industry advisors in the ATLSS and PRESSS programs. Also, a budget of $100,000 has been proposed to initiate research to support industry codes of practice. Phase II of the project "Design Criteria for Headed Stud Groups," including combined shear and tension, is expected to be initiated this year and completed by the end of next year. The committee also approved an increase in the Daniel P. Jenny Research

New Appointments to PCI Committees

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

- *Ad Hoc Committee on ATLSS and PRESSS*

  Neil M. Hawkins
  University of Illinois
  Urbana, Illinois

- *PCI Student Education Committee*

  Mark Fusani
  Concrete Technology, Inc.
  Springboro, Ohio

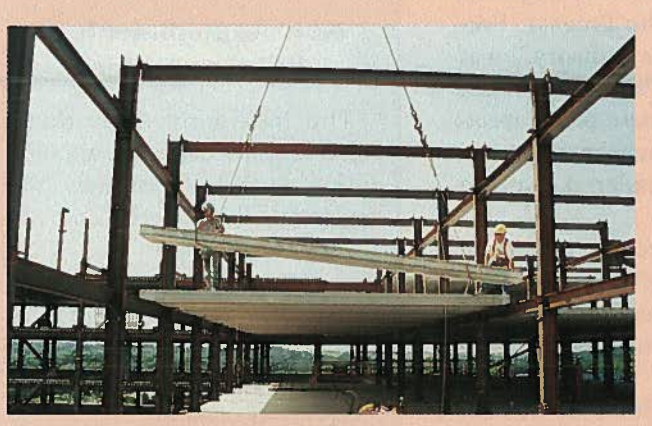
- *Plant Safety Committee*

  William Tomlin
  Finfrock Industries, Inc.
  Orlando, Florida

- *Precast Sandwich Wall Panels Committee*

  Robert T. Elliott
  H. Wilden & Associates, Inc.
  Allentown, Pennsylvania

  J. Scott Heuvel
  Iowa Prestressed Concrete, Inc.
  Des Moines, Iowa



Spancrete Wraps Up Work on Milwaukee Marriott West Hotel

Spancrete Industries, Inc., Waukesha, Wisconsin, is currently completing work on the Milwaukee Marriott West Hotel. Overall, Spancrete has provided 180,000 sq ft (16722 m²) of hollow-core floor slabs and approximately 30,000 sq ft (2787 m²) of additional products for this prominent project. Spancrete's precast hollow-core was the best material for this project because it met design requirements. Hollow-core slabs provide cohesion and stability within the entire structure. Hollow-core slabs were used for the five above ground levels as well as the roof of the hotel. While hollow-core slabs provide structural elements to this new Marriott, Spancrete's architectural wall panels and spandrels add to the exterior aesthetics, blending well with the glass and exterior insulated finish system façade. In addition to the structural and visual functions provided by precast concrete, the material also exceeds fire codes ensuring the safety of the hotel guests and employees. The Milwaukee Marriott West is scheduled to open in March 2001.

Fellowship award amount to $15,000 each for a total of $60,000 in 2001.

STUDENT EDUCATION SESSION ORGANIZED AT PCI CONVENTION

The Student Education Committee (**Alvin C. Ericson**, chairman) offered a very exciting session at the PCI Convention. The session was attended by several civil engineering and architectural students and professors from local universities.

The session included presentations on various structural and architectural applications of precast concrete, career opportunities at PCI, student design competition programs, and the importance of student education in the future growth of the industry. As usual, past committee chairman **Charles E. (Budd) Hilgeman** played a major role in the success of this program. The students had the opportunity to visit the Exhibit Hall for hands-on experience with materials and technology used in the precast, prestressed concrete industry.

The Student Education Committee has proposed several programs for the next year. Among these programs are the distribution of PCI Architectural and Design Handbooks, PCI Hollow-core Manuals, distinguished educator award, PCI's continued support of the Association of Collegiate Schools of Architecture program, student design competitions in architecture and engineering, and development of an audio and visual library for students and others.

PRESSS SESSIONS AT PCI AND ACI CONVENTIONS

A special PRESSS session entitled "Developing Innovative Solutions for Precast, Frame and Wall Systems" was conducted September 24 at the PCI Convention. It included seven presentations on various PRESSS research topics. Two additional sessions, prepared and organized by the PCI staff and sponsored by the ACI Committee 550 on Precast Concrete, were included in the ACI Convention in Toronto, Canada, on October 15-20. These sessions entitled, "Innovative Precast Concrete Systems — New Concepts for the New Century," Part I and Part II, included several PRESSS presentations on design, construction, testing, evaluation and code related issues to discuss some of the significant changes in the new IBC 2000 that are likely to affect precast concrete producers in most seismic zones.

Willis Construction Precast Concrete Components Used in Sheraton Grand Hotel

GFRC panels produced by Willis Construction, San Juan Bautista, California, are being used as the exterior facade for the new Sheraton Grand Hotel in Sacramento, California. The architects of the project chose precast concrete as the exterior material because it will provide an attractive façade that fits in with the existing buildings. The first four floors of the building will feature rusticated GFRC panels in a darker tone than the tower. About 80,000 sq ft (7432 m²) of precast concrete components will be used for the hotel which is scheduled for completion in 2001.

PCI's Freedman to Speak at John Earley Symposium

Sidney Freedman, architectural director of PCI, will speak at the Fourth Biennial Symposium on the Historic Development of Metropolitan Wash-

ington, D.C., at the University of Maryland, College Park, Maryland. Also speaking at the symposium will be many talented architects, engineers and researchers who work in the field. The symposium will be held March 31 to April 1, 2001. For more information, call Jere Gibber at (703) 768-6987 or send e-mail to jgibber@aol.com.

Metromont Supplies Precast Products for Office Building

Metromont Prestress Company, Greenville, South Carolina, has produced 3120 precast concrete components for the Hearst Tower and Parking Deck in Charlotte, North Carolina. At 50 stories high, the Hearst Tower is Charlotte's second tallest building. The building consists of 345,000 sq ft (32000 m^2) of architectural precast concrete and is designed to complement surrounding buildings.

Iverson Joins Pomeroy

James (Jim) K. Iverson has joined the Pomeroy Corporation, Petaluma, California, as chief engineer. Pomeroy is a major precast producer in Northern California involved in many large-scale marine and inland structures. Prior to this position, he was project manager for Carter & Burgess, Inc., where he was responsible for the seismic retrofitting of the San Mateo-Hayward Bridge in San Francisco Bay. He has had nearly 40 years of experience in teaching, design, and

construction of precast and prestressed concrete structures throughout the United States. Earlier he obtained his BS, MS and Ph.D. degrees from Michigan State University. Active in PCI Committee work, he has been chairman and a member of the Seismic, Bridges and Building Code committees. He also served as director on the PCI Board of Directors and is the author of several technical articles in the PCI JOURNAL.

High Concrete Provides Precast Concrete for 250th Parking Structure

The first of four parking structures being built on the Merrill Lynch corporate campus in Hopewell, New Jersey, marks the 250th parking structure for which High Concrete Structures, Inc., Denver, Pennsylvania, will provide precast concrete components. Work on the four parking structures is expected to continue through spring 2001. Incidentally, the first parking structure project that High Concrete was involved with was the Duke Street parking structure constructed in 1969 in Lancaster, Pennsylvania.

Flexicore Building System Shortens Residence Hall Construction Time

Flexicore Systems, Inc., Dayton, Ohio, provided an innovative precast concrete system for quality fast-track construction of a new residence hall on the campus of Rose-Hulman Institute of Technology, Terre Haute, Indiana. The Flexicore structural system provides components more durable and quicker to erect than steel, cast-in-place or masonry construction, while providing a fire-resistant, sound and thermally insulated structure. The system also eliminates disruption to the construction area and minimizes space requirements by factory-casting off-site, while eliminating production downtime due to cold weather. In only 11 weeks, Flexicore was able to erect a 56,000 sq ft (5200 m^2), four-story, stately campus home for more than

200 students on time and well within budget.

Shockey Precast Receives Two Contracts

Shockey Precast Group, Winchester, Virginia, has been awarded two contracts to supply precast concrete components for two Maryland-area sports facilities. Shockey will supply precast concrete for the new 420,000 sq ft (39000 m^2) Comcast Center at the University of Maryland, College Park, Maryland, that is to be completed in early 2002. Shockey will also provide precast products for the Towson University Stadium & Sports Complex – Phase II in Towson, Maryland. Shockey will deliver more than 3000 double and triple seating units for this project scheduled for completion in 2001.

Precast Concrete Lends Strength to New A&P Market

Strescon Industries, Inc., Baltimore, Maryland, provided over 23,000 sq ft (2140 m^2) of precast concrete wall panels for the new A&P Supermarket which recently opened in Mansfield, New Jersey. The precast concrete exterior wall is not only aesthetically pleasing, but also provides necessary structural support. The architect also chose precast concrete because using precast concrete wall panels does not produce the block and mortar residue that masonry does, which helps provide for a clean and efficient work site.

Spancrete of Illinois Expands Manufacturing Capacity

Spancrete of Illinois, Inc., Crystal Lake, Illinois, is expanding and upgrading its Crystal Lake facility. This process includes the renovation of six 4 ft (1.2 m) outdoor manufacturing beds as well as the installation of a new GT 240 Flare Out hollow-core extruder produced by Spancrete Machinery Corporation in Waukesha, Wisconsin. The new machine will manufacture Spancrete® 4 and 8 ft (1.2 and 2.4 m) hollow-core floor slabs and wall panels on the newly renovated prestressing beds.

Newcrete™ Supplies Precast Components for Parking Structure

Newcrete™ Products, a division of New Enterprise Stone and Lime Co., Inc., New Enterprise, Pennsylvania, provided precast concrete components for the Newark International Airport's new parking structure. Over 2000 precast/prestressed concrete components were used in the structure, including double tees, inverted tees, L-beams, grade spandrels, helix spandrels, bridge spandrels and deck slabs, and other products.

Coreslab Acquires Structural Precast Products Company

Coreslab Structures (Ark), Inc., Conway, Arkansas, has acquired the production facility of Structural Precast Products Company LLC from the Rogers Group, Inc., Nashville, Tennessee. Coreslab will operate this manufacturing facility as Coreslab Structures (Ark), Inc. Howell P. Anderson will continue to be vice president and general manager at Coreslab Structures.

PCI President **Tom Battles** (second from left) attended the annual meeting of the Georgia/Carolinas PCI in August where he presented a certificate and check for $10,000 to Clemson University for the Daniel P. Jenny Research Fellowship entitled "Preliminary Study of Precast Concrete in the Construction of Tornado Shelters." Shown receiving the award is **Dr. Scott D. Schiff**, Associate Professor of Civil Engineering at Clemson University. Also pictured is **David Impson** (left), the graduate student who will be working on the research program, and **Mike McConochie** (right), Director of the Georgia/Carolinas PCI.

High Concrete Announces New Contracts, Completes Other Projects

High Concrete Structures, Inc., was recently awarded several new contracts to produce precast concrete components:

- RCN Corporate Headquarters, Lawrenceville, New Jersey — Five parking structures totaling 395,000 sq ft (36700 m^2).
- State College Municipal Building, State College, Pennsylvania — High Concrete will produce 13,000 sq ft (1200 m^2) of architectural precast concrete wall panels for this building.
- Ephrata Hospital, Ephrata, Pennsylvania — A 70,000 sq ft (6500 m^2), two-elevated level parking structure.
- The Borgata Casino, Atlantic City, New Jersey — A 1,200,000 sq ft (111500 m^2), six-elevated level parking structure.
- Metro Top Parking Garage, Woodbridge, New Jersey — A 180,000 sq ft (16700 m^2), four-level parking structure.
- Harrah's Casino Parking Garage, Atlantic City, New Jersey — A 310,000 sq ft (28800 m^2) parking structure.
- Wyoming Valley Health Care System, Wilkes-Barre General Hospital Parkade, Wilkes-Barre, Pennsylvania — A 65,000 sq ft (6040 m^2), three-elevated level parking structure.

High Concrete recently completed work on an 80,000 sq ft (7430 m^2) AIDS research facility for the National Institute of Health, Bethesda, Maryland. For the project, High Concrete provided precast concrete architectural cladding. The company also provided precast concrete components for the expansion of an existing parking structure and the construction of two new parking structures at the Fair Oaks Mall, Fairfax, Virginia, as well as the construction of Princeton University's new 186,000 sq ft (17280 m^2) parking structure.

Chinese Academy of Engineering Elects Tang

The Chinese Academy of Engineering has elected **Man-Chung Tang**,

chairman of the board and technical director of T.Y. Lin International, San Francisco, California, as a foreign member. Dr. Tang has worldwide experience in the design and/or construction of more than 100 major bridges throughout the world.

Currently, he is working on six cable-stayed bridges worldwide and is overseeing the design of the San Francisco-Oakland Bay Bridge East Span Replacement. The Chinese Academy of Engineering elects foreign members biannually; Dr. Tang is one of six foreign members elected in the last two years.

The Chinese Academy of Engineering is the highest honorary and advisory organization for engineering and technology in China. Members are elected for life and are selected for their achievements and contributions in engineering fields.

Shockey Precast Fills Large Order for Developer

More than 700 precast concrete components, supplied by The Shockey Precast Group, Fredericksburg, Virginia, will provide important support and design elements to the McKinley/Piece and Rappahannock Office Buildings in Tysons Center, Virginia. Two parking structures, included in the project, will feature precast concrete spandrels, columns and column caps, wall panels, double tees, beams and stairs. Construction is scheduled to be completed in mid-2001.

Nitterhouse Produces Hollow-core Slabs for Hotel

Nitterhouse Concrete Products, Inc., Chambersburg, Pennsylvania, along with the Hampton Inn hotel chain, recently celebrated the grand opening of an 80-room facility located on Rt. 81 in Maugansville, Maryland. Nitterhouse produced its SpanDeck hollow-core slabs for the structure. The design engineers chose the material for its efficiency in construction and cost.

DAVID SEAGREN (1959-2000)

David Seagren, quality assurance manager and chief engineer for Charles Pankow Builders, Ltd., died August 6 in Long Beach, California, at the age of 40. During his 17 years of dedicated service with Pankow, he contributed enormously to the company and the engineering profession. Mr. Seagren obtained his BS and MS degrees in civil engineering from Purdue University in 1982 and 1983, respectively. At Pankow, Mr. Seagren was responsible for corporate research and development as well as quality assurance programs. As research director, he was particularly involved in the development of the precast hybrid moment resisting frame system which has now resulted in the erection of a 39-story building in San Francisco (the tallest precast, prestressed concrete building in the United States). A long-time PCI Professional Member, he participated in both ACI and PCI committee work. "Dave was tireless in his pursuit of excellence," said Tom Verti, president of Charles Pankow Builders, Ltd. "Always the consummate professional, he applied his "midwest" work ethic to everything he did. With his mild manner and humble nature, he purposefully camouflaged his many contributions and achievements. But those who knew him and worked with him know well the impact of the contributions of this talented, dedicated, and wonderful individual."

JOHN H. BASS, JR. (1919-2000)

John H. Bass, Jr., who worked for Hamilton Form Company from 1968 to 1991, died July 21 in Clifton, Texas. He was 81. Born in Rosewood, North Carolina, Mr. Bass served as a consultant to Hamilton Form after serving 19 years as vice president and sales manager for the company. Prior to his work with Hamilton Form, Mr. Bass worked with North Carolina Concrete Products (1955 - 1957), John A. Roebling & Sons Co. (1957-1962), Southern Prestressed Concrete Co. (1962 - 1964), and Valmont Manufacturing Co. (1964 - 1968). A World War II veteran who served under General George Patton, Mr. Bass was known for his good sense of humor and loved to tell stories. He never missed a PCI Convention where he made countless friends while managing the Hamilton Form booth. John Bass will be remembered fondly by many PCI members.