LETTERS TO THE EDITOR

Lazarus Department Store

For those of you that have not visited Pittsburgh lately, you will be amazed to see the transformation that has taken place downtown. For the past few years, Pittsburgh officials have undertaken an ambitious billion dollar restoration program to beautify and re-energize the city. In addition to two new stadiums, an expanded convention and exhibition center, and the renovation of numerous historical buildings, a grandiose plan has been put into effect to rebuild Marketplace and the downtown retail center. A centerpiece in this renovation program is the four-story Lazarus Department Store. The precast concrete façade of this building is done with exquisite taste and attention to detail. The rustication and textures on the precast panels are beautifully woven. The architect, engineer and precaster are to be congratulated for an exemplary job, well deserving the many accolades they have received. (See article, "Precast Concrete Panels Give Scale and Grandeur to Lazarus Department Store," September-October PCI JOURNAL.)

Peter Roe
Pittsburgh, Pennsylvania

Pittsburgh was traditionally known as "Steel City," but creeping into the downtown skyline are now some notable concrete buildings. None is more magnificent than the new multi-million dollar Lazarus Department Store which adds glitz and function to the downtown area. The design-construction team have done a wonderful job in "sculpturing" the exterior façade and, so to speak, have done "precast concrete proud!" (See article, "Precast Concrete Gives Scale and Grandeur to Lazarus Department Store," September-October PCI JOURNAL.)

Roger Taylor
Cleveland, Ohio

My favorite store to shop in downtown Pittsburgh is the Lazarus Department Store. This is not only because of the plentiful merchandise but because I also find the precast parking structure to be convenient and, furthermore, I enjoy being surrounded by all the beautiful precast concrete. In my view, this building has already become a downtown Pittsburgh landmark! (See article, "Precast Concrete Gives Scale and Grandeur to Lazarus Department Store," September-October PCI JOURNAL.)

John Peters
Pittsburgh, Pennsylvania

I salute the PCI JOURNAL staff for having produced the best article I have ever seen. (See article, "Precast Concrete Gives Scale and Grandeur to Lazarus Department Store," September-October PCI JOURNAL.) The front cover and article combined perfectly for an absolutely spectacular presentation. Thank you for choosing one of our buildings to do such a fine job. It is truly a milestone in our company's history.

Anthony Di Giacomo, P.Eng.
Vice President
Modern Mosaic Ltd.
Niagara Falls,
Ontario, Canada

Headed Stud Anchorages

Although headed stud anchorages are used frequently in the precast concrete industry, there really has not been any large-scale research to backup design practice. Therefore, it is very timely that the beginnings of the series of papers on the results of the PCI stud research program have been

New Appointments to PCI Committees

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

- *PCI Bridges Committee*

Kevin R. Eisenbeis
Harrington & Cortelyou, Inc.
Kansas City, Missouri

Antonio M. Garcia
Frederic R. Harris, Inc.
Tallahassee, Florida

R. Jon Grafton
Pomeroy Corporation
Perris, California

Bijan Khaleghi
Washington State DOT
Olympia, Washington

Mohsen A. Shahawy
Florida DOT
Tallahassee, Florida

- *PCI Bridge Producers Committee*

James P. Linskins
Rocky Mountain Prestress
Denver, Colorado

- *PCI Bridge Design Manual Committee*

Donald Goldberg
Goodkind & O'Dea, Inc.
Rutherford, New Jersey

NOMINATIONS FOR FELLOWS OF PCI

It is not too early to begin thinking about nominations for Fellows of PCI for 2001. The Fellows Award is intended to honor current or former PCI Members for outstanding contributions to the precast, prestressed concrete industry and to PCI. Candidates for the award must be, or have been, either employees of Producer or Associate Member firms, Professional or Affiliate Members, or retired PCI Staff. Candidates must have been active in one or more of these membership categories for at least ten years to be considered. Nominations should be submitted to PCI Headquarters on the official application form by **April 30, 2001** to be considered for the 2001 awards. Application forms are available on request from PCI.

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.

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 January 15, 2001 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.

published. I hope that the remaining papers will be published in a timely fashion because this material can be put to good use. (See article, "Design Criteria for Headed Stud Groups in Shear: Part 1 – Steel Capacity and Back Edge Effects," September-October PCI JOURNAL.)

Edward Greeley
Atlanta, Georgia

TECHNICAL ACTIVITIES COMMITTEE NEWS

The following is a summary of events that have occurred in the technical arena since the PCI Convention/Symposium in September.

- On December 14, a one-day meeting was held at PCI Headquarters by the PCI Seismic Fast Team. Present at the meeting were **Ned Cleland** (chairman), **Tom D'Arcy**, **S. K. Ghosh**, **Harry Gleich**, **Frank Nadeau**, **Phil Iverson** and **Jason Krohn**. The purpose of the meeting was to review and identify seismic design issues for precast concrete in Chapter 21 of the ACI 318 Building Code. Among the topics singled out for further development were:
  - Boundary elements and required cover.
  - Ties around corner bars and splice sleeves.
  - Definition of a wall and frame.
  - Shear-friction calculations across a wall.
  - Untopped diaphragms composed of both double tees and hollow-core slabs.
- Several meetings have been held between members of the PCI Industry Advisory Group (**Thomas J. D'Arcy**, chairman) and Wiss, Janney, Elstner Associates (WJE) on progress and direction with the PCI-sponsored research project on Headed Studs. The WJE principal investigators, **Neal S. Anderson** and **Donald F. Meinheit**, have published the first part of their study in the September-October 2000 issue of the PCI JOURNAL, "Design Criteria for Headed Stud Groups in Shear: Part 1 – Steel Capacity and Back Edge Effects."
- A PCI Fast Team, comprising **Ned Cleland**, **Tom D'Arcy**, **Robert Fleischman**, **S. K. Ghosh**, **Neil Hawkins**, **Michael Oliva**, **Richard Sause**, **Phillip Iverson** and **Paul Johal**, has been working quietly but diligently in proposing seismic provisions for 2000 NEHRP (National Earthquake Hazards Reduction Program). The work of this team is summarized in three articles by Neil M. Hawkins and S. K. Ghosh, titled "Proposed Revisions to 1997 NEHRP Recommended Provisions for Seismic Regulations for Precast Concrete Structures."
  - Part 1 – Introduction (May-June 2000 PCI JOURNAL)
  - Part 2 – Seismic-Force-Resisting Systems (September-October 2000 PCI JOURNAL)
  - Part 3 – Diaphragms (November-December 2000 PCI JOURNAL)

- The Litewall Erection Procedures Report Fast Team met November 10 to 11, 2000 in Chicago to resolve the comments by TAC. Four members of both TAC and the Erectors Committee along with PCI staff members were able to revise the reports and satisfy the concerns of both groups.

The decision was made to separate the basic report into four parts:

1. Recommended Practices and Procedures for the Erection of Vertical Litewalls with Corbels and Pocketed Spandrels.

2. Recommended Practices and Procedures for the Erection of Vertical Litewalls with Corbels and Haunched Spandrels.

3. Recommended Practices and Procedures for the Erection of Vertical Litewalls with Pockets and Haunched Spandrels.

4. Recommended Practices and Procedures for the Erection of Horizontal Litewalls with Pocketed or Haunched Spandrels.

The revised texts by the Fast Team will be reviewed by TAC at their January 20 to 22, 2001 meeting. In addition, figures and photographs will be added to the text.

EDUCATION SUBSIDIES APPROVED FOR 2001

The Student Education Committee reports that the free distribution of PCI Design Handbooks and Architectural Manuals will continue into 2001 to students in civil engineering and architectural design courses. The committee has an allocation of 2000 Design Handbooks and 1000 Architectural Manuals to be distributed during 2001.

Also, PCI's Hollow Core Committee has approved the free distribution of PCI's Hollow Core Manual to all those students who order the Design Handbook. The Board has also approved the free distribution of the Bridge Design Manual to professors teaching relevant courses at various engineering schools.

In addition, PCI's videos on "Architectural Precast Concrete: The Solution of Choice for Shaping the Future," the Aurora Justice Center, and a video on hollow-core floors and walls are available free of charge to universities for educational purposes. The hollow-core video, titled "Hollow-Core Floors and Walls: Building Materials for the 21st Century," outlines the advantages and benefits of hollow-core products and presents various possibilities for their use.

All state and regional associations are encouraged to take advantage of these opportunities provided by PCI. These programs have proven to be very popular among students and professors. Contact **Paul Johal** at PCI for more information.

Krohn Joins PCI Staff as Technical Services Manager

Jason J. Krohn has joined the PCI staff at their headquarters in Chicago, Illinois, as Manager of Technical Services. In this newly created position, Mr. Krohn will be working under Phil Iverson and devoting much of his time to the code arena with Dr. S. K. Ghosh, as well as acting as liaison with several of the TAC technical committees. Bringing four years of technical experience to PCI, Mr. Krohn had been a design engineer for PBM Concrete, Inc., a structural and architectural precast, prestressed concrete producer based in Rochelle, Illinois. While in school prior to joining PBM Concrete, Inc., he served as a research engineer for the U.S. Army Corp. of Engineers in Champaign, Illinois, and as a civil engineer from the U.S. Army Defense Ammunition center and school in Savanna, Illinois. Mr. Krohn received his bachelors and masters degrees in civil engineering from the University of Illinois at Urbana-Champaign. Currently, he is in the process of becoming a registered structural engineer in Illinois. He is a member of the National Society of Professional Engineers and the American Society of Civil Engineers.

R&D COMMITTEE NEWS

The following is a summary of recent R&D activities.

Overview of construction of parking structure. Photograph was taken December 5, 2000.

World's Largest Precast Parking Structure for Detroit Metro Airport

Precast and prestressed concrete is playing a very prominent role in the construction of the new Detroit Metropolitan Wayne County Airport Midfield Terminal Parking Garage, soon to be the world's largest parking structure. (Currently, it is believed the parking deck for the Mall of America in Minneapolis holds the world record.)

At 11,500 spaces, the facility will serve Northwest Airlines (NWA) new Midfield Terminal at Detroit Metropolitan Airport. Designed by Walker Parking Consultants, it is the largest parking structure ever constructed in a single phase.

It is difficult to describe the Midfield Terminal Parking Garage without using large numbers of superlatives. The facility comprises ten levels, two below grade and eight above. It is a third of a mile long, and varies in width between 240 and 360 ft (73 and 110 m). When describing the size of the facility, it is easier to talk in acres, instead of square feet! Total floor area is 89 acres with nine acres of slab-on-grade parking and 80 acres of structured parking. Level 10 is the smallest floor at 4 acres and Level 6 is the largest at 12 acres.

The main body of the facility is precast, pretensioned concrete. More than 4950 double tees, 10, 12, 12½ ft (3.05, 3.66, 3.81 m) wide by 60 ft (18.3 m) long, supported by inverted tee beams, columns and lateral load-resisting frames, comprise its structure. Altogether, 10,146 precast concrete components will be used. The precast concrete products are being fabricated by PBM Concrete, Inc., at its five plants. Two cast-in-place concrete double helices, one at each end of the facility, and eight interior express ramps provide vehicular vertical circulation.

Despite its mammoth size and numerous design challenges, the schedule for design and construction of the Midfield Terminal Parking Garage was quite short. Northwest Airlines issued a Request for Proposals on April 20, 1998, interviewed Walker Parking Consultants on June 17, and awarded the design contract on June 23.

Construction documents were released to pre-qualified bidders on April 29, 1999, after only a 10-month design period. Bids were received on June 24, and the construction contract was awarded to the Alberici-Walsh-PBM joint venture on July 2. Construction completion is scheduled for December 2001.

The frame of the structure is mainly pretopped precast concrete. One exception is the heavily loaded 1000 ft (305 m) long Commercial Vehicle Roadway at the westernmost bay of Level 4. That roadway is site-topped, using 6 ft (1.83 m) wide double tees.

Working for NWA, the design and construction managers for the Midfield Terminal Project, Walker Parking Consultants, assembled and led a team of 14 specialists to design all elements of the parking structure. Some of the participants in the design-construction team include:

Architect: Sims Varner & Associates
Structural Engineer: HNTB
General Contractor: Joint Venture, Alberici-Walsh-PBM
Precaster: PBM Concrete, Inc.

PRESSS Final Reports Nearing Completion

The PRESSS Phase III research program will result in 10 reports based on the large-scale five-story precast prestressed concrete building tested in September 1999 at the University of California, San Diego. The building, consisting of four different ductile frames in the longitudinal direction and a shear wall system in the transverse direction, was subjected to severe seismic loading in both directions.

The behavior of the structure was extremely satisfactory, with only minimal damage in the shear wall direction, and no significant strength loss in the frame direction, despite being taken to drift levels up to 4.5 percent, which is 100 percent higher than the design drift level. The test validated the Displacement-Based Design (DBD) approach to determine the required strength and confirmed the low damage and low residual drift expected of the building using this approach.

The results obtained from this test

W. BURR BENNETT, JR. (1920 - 2000)

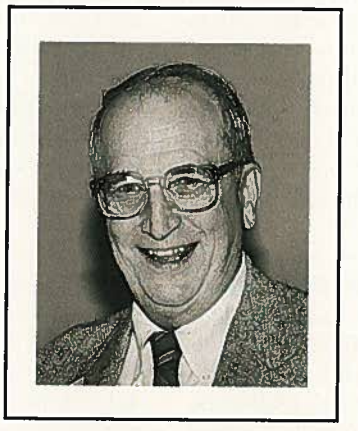
W. Burr Bennett, Jr., former PCI Executive Vice President, and a gentle giant in the precast, prestressed concrete industry died November 27 at his home in Grayslake, Illinois, at the age of 80. Mr. Bennett joined the PCI as Executive Director in 1968 following the sudden death of Robert J. Lyman, the third man to hold that position. (Norman L. Scott and Martin P. Korn preceded Lyman as executive directors of PCI.) He held that position for the next ten years until his resignation on December 31, 1978.

During his term of office, Mr. Bennett guided the Institute through a period of remarkable growth and change in the industry. In 1968, annual industry sales were estimated at $500 million, the PCI was staffed with only nine employees, and had an annual working budget of $490,000. Ten years later, the industry's annual estimated sales volume had reached $1.4 billion, PCI's staff had more than doubled, and the Institute worked with an annual working budget of $1,400,000.

In that same decade, the Institute published eight major handbooks and manuals on structural design of precast, prestressed concrete, architectural precast concrete, and quality control standards, in addition to the PCI JOURNAL, PCItems, Bridge Bulletins and various other newsletters. At the same time, progress was being made in establishing the plant certification and safety programs. It should be noted that in the early seventies, PCI was operating under three divisions, namely, Architectural Precast, Structural Precast, and Post-Tensioning.

Under his leadership, PCI in 1974 hosted the Seventh FIP (Fédération Internationale de la Précontrainte) World Congress in New York City. More than 3000 people from 75 countries participated in the congress. This single event, more than any other, crystalized the notion that no country could afford to remain isolated and that much greater progress could be attained by cooperation and sharing of knowledge throughout the nations of the world. Mr. Bennett then served a four-year term as U.S. Vice President to FIP's Administrative Council and Executive Committee.

In 1994, he was among the first 25 Fellows to be elected by the PCI. A



frequent PCI JOURNAL reviewer, he is also the author of several articles published in the JOURNAL.

Prior to joining PCI, Mr. Bennett was director of engineering services at the Portland Cement Association for twelve years. While at PCA, he also held a number of other positions.

From 1954 to 1956, he was plant engineer for Frontier Dolomite Concrete Products in Lockport, New York, one of the first precast producers in that state. Earlier, he was a bridge engineer and deputy superintendent of highways at Niagara County, New York. A registered professional engineer in Illinois, New York and Pennsylvania, he obtained his BS in civil engineering (Magna Cum Laude) from Syracuse University in 1950.

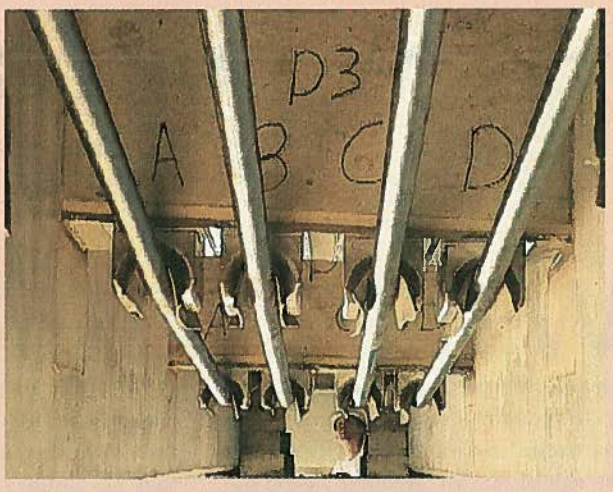
In the fifties, Mr. Bennett served as secretary of ACI-ASCE Committee 323 which developed and published the first "Tentative Recommendations for Prestressed Concrete" (1958). This report formed the basis of prestressed concrete design provisions for the ACI Building Code. Later, he served as a member of ACI Committee 318 which incorporated several additional design provisions on prestressed concrete in the ACI Building Code.

After leaving PCI, he established his own firm, W. Burr Bennett, Ltd., which provided marketing, management and engineering services for the precast concrete industry and various concrete associations. During this time, he served as executive director of the American Society for Concrete Construction.

In 1988, he served a one-year term as president of the American Concrete Institute after serving on their Board of Directors for three years including one year as vice president. Later, he was recognized as an ACI Fellow and Honorary Member. He also received the Arthur J. Boase Award from the Reinforced Concrete Research Council for his significant contributions that advanced the state-of-the-art of reinforced and prestressed concrete.

Burr Bennett's leadership, good counsel and gentle demeanor will be long remembered by PCI staff, his professional colleagues, friends and family members. We are all grateful to him for entering our milieu and enriching our lives! [GDN]

Test girder being barged across the Detroit River. Ambassador Bridge is in the background.



Underside view of test girder showing externally draped carbon fiber reinforced polymer (CFRP) tendons.

Prototype CFRP/CFCC Precast Prestressed Girder Successfully Tested

Previous research carried out at Lawrence Technological University had shown that the performance of prestressed concrete girders using carbon fiber reinforced polymer (CFRP) tendons could be enhanced by combining bonded internal tendons with unbonded externally draped tendons. This was shown to be valid in both simply supported and continuous girders. For more details on the research work, see the article, as well as the references, by Nabil Grace in this current issue of the PCI JOURNAL.

An opportunity to apply the results of this research came about in the soon to be constructed Bridge Street Bridge Deployment Project in the City of Southfield (near Detroit), Michigan. This bridge will require twelve pretensioned/post-tensioned DT precast concrete girders. To verify the assumptions made in the design, a full-scale DT girder was instrumented and tested under ultimate load. This was mandated by the design team prior to the production of the DT girders.

The test girder was fabricated by The Prestressed Group in Windsor, Ontario. The girder measured 68 ft 6 in. long, 4 ft high and 7 ft wide (20.89 x 1.23 x 2.13 m). Thirty CFRP tendons (straight and draped) per stem were pretensioned prior to casting the concrete. Various configurations of bent shapes made of carbon fiber composite cables (CFCC) were used for reinforcement. CFRP rods were also used for flexural reinforcement.

Various types of sensors were attached to the CFRP tendons at different locations along the girder span to measure strain, camber, prestressing forces, transfer length, and other key parameters. The measured camber and stresses at the midspan, after release, were close to the values predicted from the design calculations. A partial external post-tensioning force was applied after the release of the internal tendons by using externally draped CFCC (unbonded) strands. Each of the externally draped strands was instrumented to measure post-tensioning forces and elongation.

The test girder was barged from Windsor, Ontario to Detroit, Michigan, across the Detroit River. Barging was necessary since the Ambassador Bridge and the Detroit/Windsor tunnel could not accommodate the

have been analyzed and design guidelines have been developed. These guidelines are being finalized in order to develop design examples and for incorporation into various building codes.

All PRESSS Phase III reports are scheduled to be completed as Volume 3 by February 2001. The reports include details of construction, test procedures, building response, test database, analytical studies and design guidelines. Proposed titles for these reports are listed as follows:

Precast Seismic Structural Systems PRESSS Phase III: The Five-Story Precast Test Building – Vol. 3

Vol. 3-1: Seismic Design (Stanton, Nakaki)

Vol. 3-2: Construction (Nakaki, Sritharan)

Vol. 3-3: Test Procedures and Instrumentation (Sritharan, Conley, Pampanin)

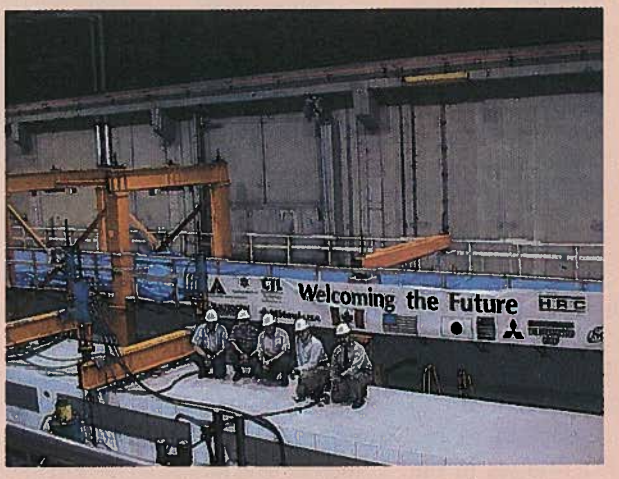
Vol. 3-4: Frame Direction Response (Pampanin, Priestley, Sritharan)

Vol. 3-5: Wall Direction Response (Conley, Priestley, Sritharan)

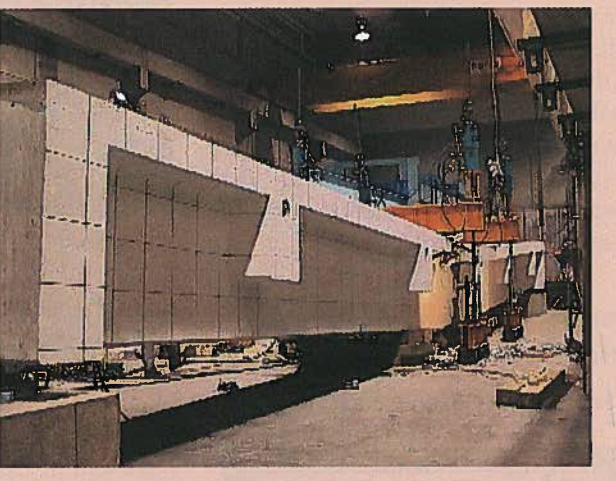
Vol. 3-6: Test Database (Sritharan)

Vol. 3-7: Response Predictions (Sause, Pessiki)

Vol. 3-8: Analytical Parameter Studies (Sause, Pessiki)



Engineers responsible for the design and testing of the prototype girder pose for a photograph (left to right): **Fred Navarre**, P.E., Chief Structural Engineer, HRC; **Richard Nacey**, P.E., Project Structural Engineer, HRC; **Gary Tressel**, P.E., Project Manager, HRC; **Donald Gross**, City Administrator, The City of Southfield; and Dr. **Nabil Grace**, Director of Structural Testing Laboratory, Lawrence Technological University.



Test girder was loaded to ultimate. The behavior of the girder was good through all stages of loading as predicted. The testing was carried out at the Construction Technology Laboratories in Skokie, Illinois, in October of this year.

weight and length of the girder. The girder was trucked [a distance of approximately 300 miles (490 km)] to the Construction Technology Laboratories in Skokie, Illinois. Once in place, a CFRP reinforced topping slab was added to the test girder. NEFMAC CFRP grids were used to reinforce the deck slab.

After the concrete of the topping slab gained adequate strength, the post-tensioning force was increased to the design level. The girder was tested under a four-point load located at the midspan. Initially, static load testing was conducted to verify the predicted service load and the cracking load. This was followed by the ultimate load test.

The test girder performed very well and confirmed the assumptions made in the design. The next phase of construction, namely, the fabrication of the girders for the Bridge Street Bridge, is now proceeding.

The following participated in this project:

- The City of Southfield, Michigan
- Hubbell, Roth & Clark (HRC), Consulting Engineers, Bloomfield Hills, Michigan
- Lawrence Technological University, Southfield, Michigan
- Construction Technology Laboratories, Inc., Skokie, Illinois
- The Prestressed Group, Windsor, Canada
- Mitsubishi Chemical Corporation, Japan
- Tokyo Rope Manufacturer, Japan
- AutoCon, Canada
- Sumitomo Corporation, USA
- Mitsui USA Corporation

The instrumentation and testing of this DT girder was jointly funded by the City of Southfield and the Federal Highway Administration.

The developmental research and preliminary model testing, which provided the basis of design for the Bridge Street Bridge Deployment Project, was funded by the National Science Foundation, Division of Civil and Mechanical System and was conducted by Lawrence Technological University (under the direction of Dr. Nabil Grace), Southfield, Michigan and the University of Windsor, Windsor, Ontario.

Vol. 3-9: Design Guidelines (Stanton, Nakaki)

Vol. 3-10: Summary Volume (Priestley)

Volume 3-4 on Frame Direction Response and Volume 3-9 on Design Guidelines have been completed and submitted to PCI. For additional information on these reports, contact PCI Research Director **Paul Johal** at (312) 786-0300.

ATLSS Researchers Testing Unbonded Post-Tensioned Shear Walls

ATLSS researchers at Lehigh University are conducting cyclic and monotonic lateral load tests (under constant axial load) on large-scale multistory unbonded post-tensioned precast concrete walls. The PRESSS and NIST research programs have already shown the beneficial effects of connecting precast concrete members using unbonded post-tensioning tendons, especially in the case of beam-to-column connections. The five-story PRESSS building test and the analytical study conducted last year have indicated that unbonded post-tensioned precast walls provide a good alternative to conventional cast-in-place concrete walls in all seismic regions. Unbonded post-tensioned precast walls have

the ability to soften and undergo large nonlinear lateral drifts with little damage or residual displacement. As a result, only minor repairs may be needed to the walls after a design level earthquake. The experimental program is intended to verify the analytical model developed earlier and to quantify the shear capacity of horizontal connections.


Dave Brown


Marv Byington


Michael F. McNeil


Vincent A. Olivieri

Cooper Appointed Director Bridge Technology, FHWA

James D. Cooper has been appointed to the senior executive service position of director, Office of Bridge Technology, Federal Highway Administration, Washington, D.C. Prior to this position, Mr. Cooper was the technical director for bridges in the Office of Infrastructure Research and Development, McLean, Virginia. During his long distinguished career, he has held several other key positions in the research and development area including chief, Structures Division FHWA, and technical director, Structural and Geotechnical Engineering for the Defense Nuclear Agency's Facility in Virginia. He is the author or coauthor of over 100 research papers and a member of several professional organizations.

New Appointments at BERGER/ABAM

Two new appointments have been announced by BERGER/ABAM, headquartered in Federal Way, Washington.

Dave Brown, P.E., was named branch manager of BERGER/ABAM's Portland, Oregon, office. Mr. Brown has a rich background in managing multidiscipline architectural and engineering projects. He has over 18 years of experience and has directed street and highway improvements; infrastructure master planning; sanitary engineering conveyance and treatment; water supply, distribution and treatment; and site development for commercial and industrial development.

Marv Byington, P.E., was named senior project manager and technical advisor. Mr. Byington served as BERGER/ABAM's Portland, Oregon, office branch manager for the past four years. In his new role, he will be leading project efforts, working directly with clients, and providing technical guidance. He has over 30 years of design and management experience, including 20 years as a project and construction manager for the Port of Portland. One of his projects was the Portland International Airport.

J.W. Peters Appoints Two Project Managers

J.W. Peters & Sons, Inc., Burlington, Wisconsin has announced the appointment of two project managers for the company's expanding precast operations:

Michael F. McNeil has been appointed senior project manager. A professional engineer, Mr. McNeil will be directing the project management group at the company's headquarters

Ayaz Ahmed

Donnie Brown

William Snyder

Stephen Husak

in Burlington. Prior to his current position, he worked for the Wisconsin Electric Power Company for more than 20 years. He has a BS degree in electrical engineering from the University of Illinois at Urbana.

Vincent A. Olivieri has been named project engineer. Mr. Olivieri will have a broad range of project management responsibilities at the company's headquarters in Burlington. His plant experience includes quality control and field engineering on such projects as the Stratosphere and MGM Grand Hotel in Las Vegas. He also has assisted management in all aspects of plant operations including environmental and safety requirements. He holds a BS degree in civil engineering from Old Dominion University.

Ahmed Named Director of Manufacturing at Tindall

Ayaz Ahmed has joined Tindall Corporation's Correction Division in Conley, Georgia (near Atlanta), as the director of manufacturing. His responsibilities include overall management of manufacturing activities in the following areas: production, material control, quality control, engineering and drafting, human resources, purchasing and industrial engineering. A native of Pakistan, he received his BS in electrical engineering from the University of Arkansas at Fayetteville. He also obtained his MBA from Middle Tennessee State University. Mr. Ahmed is currently pursuing an MS in industrial engineering from the University of Tennessee.

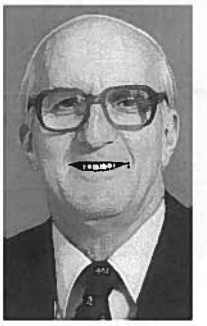
Tindall Names Brown for HR Position

Donnie Brown has been named vice president of Human Resources of Tindall Corporation in Spartanburg, South Carolina, one of the largest precast/prestressed producers of concrete products in the United States. Mr. Brown will be responsible for human resource functions for the company, including management development and education, benefits administration and college recruiting for all of the corporation's five plants. He is a member of the Society of Human Resource Management and is a certified Senior Professional in Human Resources (SPHR).

American Spring Wire Expands Operations

In a move to strengthen the company's marketing and manufacturing capabilities, American Spring Wire Corporation has announced the creation of two key positions. **William Snyder** has been promoted to vice president – commercial and **Stephen Husak** to vice president – manufacturing. In their new positions, Mr. Snyder

Breen Honored by IABSE with International Laureate



The Ferguson Structural Engineering Laboratory of the University of Texas at Austin is pleased to announce that **John E. Breen**, holder of the Nasser I. Al-Rashid Chair in Civil Engineering and former Director of the Laboratory, is the year 2000 Laureate of the International Award of Merit of the International Association for Bridge and Structural Engineering. The award was presented by IABSE at its recent Congress in Lucerne, Switzerland. Dr. Breen was recognized for his key role in teaching, research and consulting in the field of structural concrete, as well as his involvement in international associations. In the 25-year history of the award, he is the fourth American to be awarded. His research and development contributions for design and construction of structural concrete, buildings and bridges have won numerous awards. An Honorary Member of the American Concrete Institute, he has chaired its Building Code Committee and the IABSE Working Commission on Structural Concrete. He has been elected to both the U.S. National Academy of Engineering and the Swiss Academy of Engineering Sciences.

will be responsible for the company's commercial business which includes sales, marketing and customer service while Mr. Husak's responsibilities will be manufacturing which includes the continuous improvement of cost, productivity, quality, and safety.

William Snyder has been employed by ASW for over three years and previously was general sales manager and product manager where he was responsible for valve, die spring and shaped wire products. Prior to coming to ASW, Mr. Snyder worked for A.K. Steel in several sales and marketing management capacities. He holds a BS degree in chemical engineering from the University of Kentucky.

Stephen Husak has been employed by ASW for almost four years. Recently, he served as corporate manufacturing manager for more than a year and was responsible for developing and implementing the corporate manufacturing strategy for the company's three locations. Mr. Husak was the plant manager at ASW's Kankakee facility from 1996 through 1998.

American Spring Wire Corporation, headquartered in Cleveland, Ohio, is a world leader in the manufacture of prestressing strand and other wire products for the precast/prestressed concrete industry.

Indian Academy/Council Establish Professorship Award

The Indian National Academy of Engineering (INAE) and the All India Council for Technical Education (AICTE) have jointly established a Distinguished Visiting Professorship Scheme aimed at promoting an Industry-Institute interaction. The committee for the INAE-AICTE commission has selected **Mahesh Tandon** of Tandon Consultants Pvt Ltd as the first recipient of the Distinguished Visiting Professorship.

Mr. Tandon will be associated with the Indian Institute of Technology at Kanpur. Among his responsibilities will be to develop lectures, projects, research and new technologies aimed at bridging the gap between academics and practice.

Precast Concrete "Stars" in New Parking Structure

The Newark Star Ledger is ranked twentieth out of the top 100 daily U.S. newspapers by circulation. As the greater Newark, New Jersey, area continues to grow, so will the Star Ledger's circulation. To alleviate some of the growing pains of this rapid growth, the Star Ledger built a parking structure directly adjacent to its Newark headquarters. Precast concrete, produced and erected by Oldcastle Precast, Inc., played a primary role in building the 60,000 sq ft (5580 m^2) garage.

The Star Ledger needed a parking structure that could be constructed quickly, and with an expression of architectural elegance. "Traditionally, precast concrete is easy to work with and saves time on the overall project schedule. From the structural to the architectural end of the design, we were able to accommodate the needs of the Star Ledger," according to Mike Miskevics, project manager with Ragnar Benson Inc., of Pittsburgh, Pennsylvania.

The two and one-half-story parking structure holds up to 280 vehicles. Oldcastle fabricated and erected a variety of precast concrete components for the project, including four girders, four columns, 16 litewalls, 16 stairwalls, and 79 double tees. Architectural Precast, Inc., provided 43 exterior vertical tee walls with white cement and a medium sandblasted finish. The final structure has a vertical appearance that blends in very well with the surrounding buildings.

Higher Education and High Concrete Build New Structure

To relieve on-campus parking congestion, the University of Delaware is building a two-level parking structure on Academy Street in Newark, Delaware. High Concrete Structures, Inc., is providing and erecting both the structural and architectural precast concrete for the garage. The facility is expected to be open in early 2001.

According to Bob Reid, an architect with Tevebaugh Associates of Wilmington, Delaware, "Precast concrete is quick and easy to erect, and also makes designing the architectural façade simpler because of its factory-controlled aesthetic finishes." The Academy Street garage will incorporate a sandblasted architectural white concrete finish on the exterior components of the north and east sides.

The south elevation features inset brick panels to match the 40,000 sq ft (3720 m^2) office building being built directly adjacent to the parking structure. The west façade and all of the interior components will be standard structural gray concrete with a precast form finish.

DAVID A. WHITING (1949-2000)

David A. Whiting, long-time research scientist with the Construction Technology Laboratories (CTL) in Skokie, Illinois, died September 26 in Boston, Massachusetts at the age of 51. Dr. Whiting was well known and highly respected by his peers and colleagues throughout the concrete community for his work which helped advance the concrete industry. He earned a B.S. degree in chemistry from the City University of New York, and M.S. and Ph.D degrees in solid state science from Pennsylvania State University. His early work at CTL involved evaluations of high-range water reducers under contract to the Federal Highway Administration and development of a sacrificial anode cathodic protective system under contract to the National Cooperative Highway Research Program. Dr. Whiting served as principal investigator at the conclusion of both of these projects in the late 1970s. Later on, he worked on development of the so-called "Rapid Chloride Permeability Test" for concrete, under contract to the FHWA. This test has since been standardized as ASTM C1202. During the past decade, Dr. Whiting served as principal investigator on a number of transportation projects, and consultant to a number of private industry and public utility clients. These studies included control of air content in concrete, evaluation of the durability of bridge decks with superplasticizers, and performance of prestressed concrete bridges in corrosive environments. During his career, he authored over forty publications dealing with durability, concrete properties, corrosion, and behavior of concrete.

Precast Yuengling Eagles Cast into Front of New Brewery

The Yuengling Brewery, the oldest brewery in the United States, has associated itself with the eagle for many years. Therefore, it is only fitting that the two eagles with 14 ft (4.27 m)

wingspans are cast into three-story ribbed panels of the new brewery – linking their proud history with a bright future. To complete this historic undertaking, Schuylkill Products, Inc., fabricated and erected 209 THERMOMASS® wall panels for the new 250,000 sq ft (23200 m^2) Yuengling Brewery just south of Mill Creek Avenue in Pottsville, Pennsylvania.

Schuylkill Products used the THERMOMASS® system, which is a relatively new type of wall panel to the mid-Atlantic region. The wall panel sandwiches a highly efficient polystyrene insulation between two pieces of precast concrete. The panels provide a constant temperature that is necessary for the new addition that will house forty 1000-barrel storage tanks, a 5625 sq ft (523 m^2) brew-house floor area and three stories with 32,250 sq ft (3000 m^2) of storage area on each level.

John Joseph Earley, Washington, D.C., Historical Symposium

The program has been finalized for the Fourth Biennial Symposium on the Historic Development of Metropolitan Washington, D.C., March 31 to April 1, 2001. This year's symposium is on "John Joseph Earley: Expanding the Art and Science of Concrete." The symposium has been organized by the Latrobe Chapter of the Society of Architectural Historians. Contact: Jere Gibber, Conference Coordinator. Tel.: (703) 768-6987; email: jgibber@aol.com.