

# the news



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PHILADELPHIA SECTION  
AMERICAN SOCIETY OF CIVIL ENGINEERS  
1317 Spruce Street, Philadelphia, PA 19107

Vol. 62-3

76 Years of Excellence

DECEMBER, 1989

## Greetings of the Season

The Editor and staff of THE NEWS, on behalf of the Officers and Board of Directors of the Philadelphia Section, ASCE, extend to the Members and their families Heartiest Wishes for a Joyous Holiday Season, and a Healthy, Prosperous and Fulfilling New Year.

### DECEMBER JOINT DINNER MEETING

Philadelphia Section, American Society of Civil Engineers  
The Association for Preservation Technology  
Preservation Committee, American Institute of Architects

**TUESDAY, DECEMBER 12, 1989**

ENGINEERS' CLUB, 1317 Spruce Street, Philadelphia  
Cocktails - 5:30 P.M. Dinner - 6:30 P.M. Meeting - 7:15 P.M.

**SUBJECT:** REPAIR AND INVESTIGATION OF ROOF TRUSS SYSTEM IN THE ACADEMY OF MUSIC

**SPEAKER:** MR. NICK GIANOPULOS, Chairman of Board, Keast & Hood, Structural Engineers  
DR. HARRY HARRIS, Professor of Civil Engineering, Drexel University

#### DINNER CHARGE:

DECEMBER 12, 1989 MEETING AT ENGINEERS' CLUB, - ASCE Members & Guests - \$20.00; Students - \$10.00 (These charges will apply to All Dinner Meetings at the Engineers' Club). STUDENTS: If you prefer, you are invited & welcome to attend the Meeting after Dinner, at no charge.

FOR RESERVATIONS, PLEASE CALL PRESIDENT WEGGEL'S SECRETARY, KWEEING, AT (215) 895-2364. RESERVATIONS ARE REQUIRED FOR ALL SECTION MEETINGS.

## ASCE STRUCTURES CONGRESS 1990

National ASCE announces the EIGHTH STRUCTURES CONGRESS, to be held at the Omni Inner Harbor Hotel, Baltimore, MD, April 30-May 3, 1990. The Congress is sponsored by the national ASCE Structural Division, with the participation and cooperation of the following ASCE Divisions and other organizations:

ASCE Aerospace Division  
ASCE Engineering Mechanics Division  
ASCE Materials Engineering Division  
ASCE Maryland Section  
American Concrete Institute  
American Institute of Steel Construction  
Society of American Military Engineers

Baltimore's revitalization during the past decade makes it a most appropriate setting for the Structures Congress 1990, which is being organized with the theme, "Structural Engineers:

Partners in Revitalization." Session topics will especially focus on established infrastructure, revitalization of urban built environments, and the impact of the upcoming sweeping changes in Eurocodes and Common Market activities and agreements.

Highlights of the Technical Session will include:

- Bridges - Design, safety, evaluation, repair and maintenance
- Earthquakes - Seismic risk, aseismic design, damage and lessons from history
- Dynamics - Building motion due to wind and other forces
- Metals - Steel and composite structures
- Materials - Concrete masonry, materials and wood design and rehabilitation

(Continued on Page 2)

## ABUL APPOINTED YOUNGER MEMBER FORUM CHAIRMAN

Philadelphia Section President Rich Weggel is pleased to announce the appointment of — and acceptance by — Abul Syed-Muhammad, P.E., Structural Engineer, A.G. Lichtenstein & Associates, Inc., Consulting Engineers, Langhorne, PA, as Chairman of the Section's Younger Member Forum.

It is hoped that with the appointment of the new Chairman, this vital Philadelphia Section component, which unfortunately has been dormant for several years, will once again become a dynamic and vibrant force in Section affairs and activities. Younger Members are urged to contact Abul at his office, to volunteer their services and participation in a revived Forum program. He can be reached at his office in One Oxford Valley Mall, Langhorne, PA, phone (215) 752-2206.

## TECHNICAL GROUP ACTIVITIES Transportation and Urban Development Group

### A Message from the Chairman

Dear Colleague:

Once again it is time to inform you of the proposed Transportation and Urban Development Program. Again, we are pleased to have the following officers active:

Vice Chairman, Chris Rood, SEPTA  
Secretary, William Van Wagenen, Hill Int'l.

Treasurer, Jack McElwee, SEPTA

At this time, I'd like to thank them for assisting in the preparation of the program and their efforts last year.

I am attaching a tentative schedule of the program which we have developed, which attempts to cover the variation of disciplines within our Group's purview. We remain open to suggestions which you may have to help make this year's program better. We have also left open the April and May meetings to allow you to provide input on the possible topics which you would like to see on the program. Please provide input to the Officers.

(Continued on Page 2)

## DECEMBER JOINT DINNER MEETING

Philadelphia Section, American Society of Civil Engineers  
The Association for Preservation Technology

### WEDNESDAY, JANUARY 17, 1990

LOCATION: HOLIDAY INN, Goddard Boulevard, King of Prussia, PA  
(Location Map will appear in the January, 1990 issue)

Social Hour - 6:00 P.M. Dinner - 7:00 P.M. Meeting - 8:00 P.M.

**SUBJECT:** VINE STREET - PHILADELPHIA'S LAST EXPRESSWAY

**MODERATOR:** JAMES W. McPHILLIPS, P.E., Vice President, Urban Engineers, Inc.

**SPEAKER:** VITO GENUA, P.E., PA Dept. of Transportation, "The Design Challenge"  
JOSEPH P. McATEE, P.E., Urban Engineers, Inc., "The Construction Challenge"  
STEPHEN B. LESTER, P.E., PA Dept. of Transportation, "The Department's Challenge"

**SPECIAL FEATURE:** DREXEL UNIVERSITY NIGHT

### Technical Group Activities

(Continued from Page 1)

We are again requesting in response to this mailing, in order to assure that we have accurate information regarding your correct mailing address, that you fill out the attached form and return it by mail or hand to me or one of the Officers at the next meeting.

I look forward to seeing you at our first meeting and your continued participation in the Transportation and Urban Development Technical Group this year.

Sincerely,  
William T. Thomsen, P.E.  
Chairman

Transportation and Urban Development  
Technical Group, ASCE

Transportation and Urban Development  
Technical Group  
Upcoming Meetings 1989-90

No Meeting in December

Wednesday, January 17, 1990 (Hosting Section  
Joint Meeting with ASHE)  
Subject: Vine Street - Philadelphia's Last  
Expressway (See details above)

Thursday, February 22, 1990  
(Joint Meeting with IEEE)  
Subject: Newark Waterfront Connection  
Speaker: Sal Matina, P.E., PBQ&D

Thursday, March 22, 1990  
Subject: Transportation in Philadelphia  
Speaker: Denise Goren, Director  
Office of Transportation

Thursday, April 26, 1990  
Subject: To be announced

Thursday, May 24, 1990  
Subject: To be announced

#### Possible Topics

SEPTA 9th Street Branch  
UMTA 10-Year Program  
Philadelphia Port  
Hypersonic Trave, Others

Full particulars of the Group meetings will appear in coming issues of THE NEWS.

### Transportation and Urban Development Technical Group Active Member Address Data

Name \_\_\_\_\_

Title \_\_\_\_\_

Organization \_\_\_\_\_

Address \_\_\_\_\_

Business Telephone No. \_\_\_\_\_

Home Telephone No. \_\_\_\_\_

(If you want included in D-Base)

Return to: William Van Wagenen, Jr., Hill  
International, Garden Plaza Building, P.O. Box  
397, Willingboro, NJ 08046.

### Structures Congress

(Continued from Page 1)

• **Analysis** - Structural analysis, building codes, offshore structures, etc.

Also featured will be a Continuing Education Short Course on "Temporary Structures in Construction."

There will be Luncheons, Banquets, Social Events and Sightseeing Tours of the beautiful Baltimore Inner Harbor Complex and other historical places and landmarks, including the Naval Academy at Annapolis.

Advance registration will entitle attendees to a \$50 discount. For full particulars and registration forms, please contact **Ross. B. Corotis**, Co-Chair, 1990 Structures Congress, c/o The Johns Hopkins University, G.W.C. Whiting School of Engineering, Dept. of Civil Engineering, Baltimore, MD 21218-2699, phone (301) 338-8680.

### IMPORTANT:

DINNER RESERVATIONS FOR SECTION MEETINGS ARE ESSENTIAL. PLEASE PHONE IN YOUR RESERVATION AS DIRECTED ON PAGE ONE.

## REDUCED PARKING RATES

Philadelphia Section, ASCE members and guests, are entitled to special parking rates, for Engineers' Club meetings, at E-Z Parking Garage, N.E. corner of Broad and Pine Sts. Announce to the parking attendant or manager that you are attending a technical meeting at the Club. You will receive a reduced rate ticket to be validated at the Club.

### PHILADELPHIA SECTION AMERICAN SOCIETY OF CIVIL ENGINEERS OFFICERS 1989-1990

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Drexel University

Dept. of Civil &

Architectural Engineering

32nd & Chestnut Streets

Philadelphia, PA 19104

(215) 895-2355

#### Secretary - Robert M. Wright

City of Philadelphia

Department of Streets

920 Municipal Services Building

Philadelphia, PA 19102

(215) 686-5538

#### PUBLICATIONS COMMITTEE

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SEND COPY TO:

Sidney Robin

64 Nancy Drive

Richboro, PA 18954

(215) 322-7464

**COPY DEADLINE  
FOR  
JANUARY 1990  
ISSUE  
DECEMBER 12, 1989**

## NOVEMBER JOINT MEETING

November 14, 1989

Harbor League Club,  
Camden, NJ

### "Civil Engineering in the 1990s"

by William G. Richards, Staff Writer

An impressive delegation of Philadelphia Section ASCE members and guests ventured across the Ben Franklin Bridge for the November meeting, to join their host, the South Jersey Branch of the New Jersey Section, ASCE in celebrating the latter's 15th Anniversary. In the scenic setting of the beautiful Harbor League Club, the two organizations enjoyed a sumptuous meal and listened to an enlightening address "Civil Engineering in the 1990s," by National ASCE President-Elect James E. Sawyer, who traveled all the way up from Tampa, Florida to address the gathering.

#### Joint Meeting of Branch and Section

South Jersey Branch President Ed Martella and our Phila. Section President Rich Weggel co-hosted the meeting and literally "juggled" the microphone between themselves. Following announcements of upcoming events for both groups, President Weggel congratulated the South Jersey Branch on its momentous anniversary. He also announced that the Temple University ASCE Student Club had applied for full-fledged Student Chapter status. National's granting of the honor is expected soon.

#### Swarthmore College and University of Pennsylvania Night

In keeping with the Section's policy of honoring the ASCE Student Chapters and Civil Engineering Departments of area colleges and universities, the meeting highlighted Swarthmore College and the University of Pennsylvania. Professor Faruq Siddiqui, Faculty Advisor of the Student Chapter, described the General Engineering program at Swarthmore, which recently was ranked as the top Liberal Arts college in the country by U.S. News and World Report. As might be expected, the Swarthmore engineering program includes a broad liberal arts background within its curriculum.

Cory Hinds, Vice President of the ASCE Student Chapter at Swarthmore, thanked the hosts and guests for their courtesies and introduced the other officers of the Chapter: President, Lane Wilder; Secretary, Ali Usman; and Treasurer, R.J. Meagher. Cory reviewed the many and varied activities, including a first-hand commentary on the new Performing Arts Center now under construction on campus; participation in the design of craft for the Crum Creek Regatta; and taking part in the ASCE Annual Student Chapter Paper Competition and Conference. The Chapter is justifiably proud at having won the structural beam competition two years running.

#### The U. of PA Systems Chair Explains Programs

Dr. Kenneth Fegley, Chair of Penn's Systems Department, described the program at the University's College of Engineering. Civil Engineering is included within the Systems Engineering Department, which has 11 faculty members, and a \$3.5 million annual budget. There are 441

students in the undergraduate program (51 in the Civil/Systems major) and 99 in the graduate program. The other majors within the Department include Systems and Engineering (101); Applied Science (73); and a dual degree program in Management and Technology (216). Penn's Student Chapter also has won regional Concrete Canoe competitions.

Dr. Fegley introduced the officers of the University's ASCE Student Chapter: Peter B. Frank, Jr., President; and Robert E. Sheker, Vice President. Also in attendance was Faculty Advisor of the Student Chapter, Dr. Wen Shieh.

#### James Sawyer, ASCE President-Elect

President Ed Martella introduced the principal guest speaker of the evening, James E. Sawyer, who was installed as National ASCE President-Elect at the 1989 Annual Convention and Exposition in New Orleans, LA last October. He will become National ASCE President at the 1990 Annual ASCE Convention. Mr. Sawyer is the Chief Operating Officer and Vice President of Greiner Engineering, Tampa, Florida

#### ASCE Initiatives

The President-Elect then described six initiatives that have been subscribed to the Society. These are:

1. "Citizen Engineer"
2. "Manual of Quality in a Constructed Environment"
3. Establishment of a Department of Regulatory Affairs in Washington
4. Civil Engineering Research Foundation
5. Certification of Civil Engineering Specialties
6. "Key Alert" program

The "Citizen Engineer" is the recognition of the Civil Engineer as a dynamic part of the community with his efforts contributing to the good of all and encouraging each of us to participate within his/her community both on and off the job.

The "Manual of Quality" was recently completed in draft form and has undergone review by a panel of eleven construction trial attorneys which has given its recommendations. The Manual will probably be revised and have its name changed, but Jim encouraged its use by engineers. The establishment of an ASCE Department of Regulatory Affairs is in response to an increasing commitment to assist in the development of national codes and standards. The Research Foundation is a new (and expensive) venture to help promote and guide research in civil engineering and Jim hopes it will become self-sufficient in the near future.

The Certification of Post-Graduate Civil Engineering Specialties is to monitor and control the use of engineering titles. Functioning similarly to the title of Diplomat within the American Academy of Environmental Engineers, ASCE is working to develop standards and requirements for certification.

Geotechnical engineering is likely to be the first specialty certified.

The "Key Alert" program is asking ASCE members who volunteer to be notified of key civil engineering impacted legislative issues and asking them to write their Congress persons on our viewpoints.

#### Problems in Civil Engineering

Mr. Sawyer then gave his own concerns on issues that he thought were important to civil engineering. He critiqued the quality of education in the United States. He first addressed the lack of proficiency in grade school teachers in science and mathematics. Then the lack of exposure to practical engineering examples in college curriculums was discussed. And Jim ended this topic by deploring the existence of some marginal and mediocre engineering program and called for a commitment to close those that could not achieve accreditation. It should be noted that he praised those programs described by Swarthmore & Penn.

The President-Elect then discussed the need to "globalize" the American engineering profession. He pointed out that the Society is in fact an international and not just a U.S. organization. Jim used the easing of rules upcoming in the European Common Market countries as an example that there engineering practice will be accepted across international borders. But in the U.S. engineering practice is not accepted across state borders without cross-registering. He pointed out the European civil engineering practice in the U.S. has tripled in the last 5 years while our civil engineering outside the U.S. has remained stable. He called for the U.S. to institute a second language in engineering curriculum, to participate in the development of world-wide standards and to invest in construction research.

To conclude his far-ranging discussions, Mr. Sawyer brought up the need for civil engineers to promote free-market capitalism. He insisted that engineers are better qualified to manage engineering projects than are lawyers and accountants, and that younger engineers should be taught that profit is not a dirty word. He ended by promoting the idea that engineers who work to solve Society's problems and assure safety should not be forced to work under circumstances where the cheapest price is the prime consideration. We thank Jim for his thoughts and wise counsel and wish him well during his terms in office. His excellent address was well appreciated by his audience.

#### Positions Available

(Continued from Page 4)

Descriptions of the positions available hereinabove are bare outlines only. For full details and nomination data and forms, interested Philadelphia Section members are asked to contact President, Dr. Richard Weggel, Drexel University, Dept. of Civil and Architectural Engineering, 32nd and Chestnut Streets, Philadelphia, PA 19104, (215) 895-2355.

**Have You Mailed  
Your 1990 Dues to  
National ASCE?  
(If not, please do so NOW!)**

## ASCE DUES BILL AND TECHNICAL GROUP DETAILS

Section members will notice in the 1989 dues bill from National ASCE Headquarters, that the PHILADELPHIA (SECTION) DUES is itemized as \$13.00. This amount includes assessment for membership in one Phila. Section Technical Group of your choice. *If you choose to be a member of more than one group, please add \$1.00 for each group.*

Also, because National's bill did not list the Technical groups to which your \$1.00 payments were to be applied, *you are requested to get in touch with the Chairman of the Technical Groups of your preference*, so that their membership lists can be classified.

The appropriate individuals to contact are the following:

### Liaison

*Moustafa A. Gouda*  
Lippincott Engineering Associates  
1 Pavilion Place  
Riverside, NJ 08075  
(609) 461-1239

### Younger Member Forum

*Abul Syed-Muhammad, P.E.*  
A.G. Lichtenstein & Assoc., Inc.  
One Oxford Valley Mall  
Langhorne, PA 19047  
(215) 752-2206

### Construction

*Fredric L. Plotnick, Chairman*  
Engineering & Property Mgt. Consultants  
806 Hilton Lane  
Elkins Park, PA 19117  
(215) 885-3733

### Structural

*David A. VanOcker, Chairman*  
Christakis & Kachele, Inc.  
6910 Ludlow Street  
Upper Darby, PA 19082  
(215) 352-7676

### Transportation & Urban Development

*William T. Thomsen, Chairman*  
Urban Engineers, Inc.  
330 N. Third St.  
Philadelphia, PA 19406  
(215) 922-8080

### Engineering Management

*Edward F. Koehler, Chairman*  
416 Longfellow Avenue  
Wyncote, PA 19095  
(215) 557-1603

### Geotechnical

*Dr. Joseph P. Martin, Chairman*  
Drexel University  
Civil Engineering Dept.  
32nd & Chestnut Sts.  
Philadelphia, PA 19104  
(215) 895-2363

### Water Resources & Environmental Engineering

*Raymond A. Lees, Chairman*  
ERM, Inc.  
855 Springdale Dr.  
Exton, PA 19341  
(215) 524-3500

## IMPORTANT!! 1989-1990 MEETING NOTICES

MARK YOUR CALENDAR for the dates of the remaining Philadelphia Section, ASCE monthly meetings and social functions, as follows:

### ALL DINNER MEETINGS

Cocktails - 5:30 pm Dinner - 6:30 pm Meeting - 7:30 pm  
STUDENTS: All dinner and luncheon charges one-half price. If you prefer, you are invited to attend all meetings after dinner or luncheon, at no charge.

### Tuesday, February 13, 1990 - LUNCHEON MEETING

Engineers' Club - 12:00 Noon  
Subject: **Professional Liability Insurance - A Primer With Case Studies**  
Speaker: **Ken Wortley**, Insurance Underwriter  
*Villanova University Day*

### Tuesday, March 13, 1990 - Dinner Meeting

Engineers' Club  
Subject: **The "Chunnel" (English Channel Tunnel)**  
Speaker: To be announced  
*Widener University Night*

### Tuesday, April 10, 1990 - Dinner Meeting - Engineers' Club

Joint Meeting with Society of American Military Engineers (SAME)  
Subject: (Tentative) - **The Penn's Landing Project**  
Speaker: To be announced

### Saturday Evening, May 5, 1990

**Annual Spring Dinner Dance** - Colleen's, Park Towne Place,  
Benj. Franklin Parkway, Philadelphia

## ASCE COMMITTEE POSITIONS AVAILABLE

ASCE National Headquarters announces openings in 1990 for Professional Division Committees, available to Zone I nominees, which includes the Philadelphia Section, as follows:

### Professional Activities Committee (PAC)

PAC has responsibility for professional committee activities, which include management, member activities and professional practice. All Divisions and Committees listed below report to the Professional Activities Committee. A position is available on PAC.

### Engineering Management Division Executive Committee (EMDEX)

EMDEX seeks to increase Civil Engineers' awareness of, and expertise in, applying modern techniques in the effective utilization of personnel and other resources. Positions available under EMDEX are: *Committee on Engineering Management at the Organization Level (EMOL); Committee on Engineering Management at the Project Level (EMPL); and Engineering Management Activities Committee (EMAC)*. EMAC is the primarily administrative unit of EMDEX. Its major assignments include: preparation of programs for the Engineering Management Division (EMD) sessions at ASCE conferences and elsewhere; to develop programs for educational opportunities in engineering management for students and practicing engineers of ASCE; to administer awards in the Division; and to interface with Local Sections as a support unit for the EMD.

### Government Engineers Division Executive Committee (GEDEX)

GEDEX stimulates and coordinates policies, programs and procedures to promote and enhance the professional development and

recognition of Civil Engineers at all levels of government, particularly in the design and management of quality public works. The position available under GEDEX is the *Committee on Government Engineers Policy Issues (GEPI)*, in addition to appointment to GEDEX itself.

### Professional Practice Division Executive Committee (PRODEX)

This Division (PRODEX) develops and recommends policies and action programs related to the improvement of professional standards and economic conditions for Civil Engineering in all types of employment, including relationships of practicing Civil Engineers with their clients, the public and other professions. In addition to appointment to PRODEX itself, a position is available on the *Committee on Professional Registration (COPR)*. In promoting registration of Civil Engineers, COPR monitors trends and developments in registration policies and keeps the Society informed. Philadelphia Section nominations must be mailed to:

ASCE National Headquarters  
Professional Affairs Department  
345 East 47th Street, New York, NY 10017  
before February 1, 1990. All appointments begin on August 1, 1990 except to PAC, which appointment begins in mid-October, 1990. All nominees should also consider serving as *Corresponding Members* on PAC Committees. Those individuals who are nominated will be informed of the results after the Professional Activities Committee meeting in July, 1990.

(Continued on Page 3)