

# the news



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

Vol. 62-6

76 Years of Excellence

MARCH, 1990

## MARCH JOINT DINNER MEETING

Philadelphia Section and Reading Branch, American Society of Civil Engineers

**TUESDAY, MARCH 13, 1990**

LOCATION: HOLIDAY INN, Goddard Boulevard, King of Prussia, PA  
Social Hour - 5:30 P.M. Dinner - 6:30 P.M. Meeting - 7:30 P.M.

**SUBJECT: THE JOINT BRITISH-FRENCH ENGLISH CHANNEL TUNNEL**

**SPEAKER: WINN B. FRANK**, Senior Project Manager and Manager of Railroad Operations Analysis, DeLeuw, Cather & Company, Consulting Engineers, Baltimore, MD

Winn B. Frank's background includes a unique combination of experience in (1) implementation planning of railroad projects, (2) management of complex railroad studies and (3) railroad operating experience, including train performance and simulation analysis. In a recent assignment he advised the Arranging Banks (Eurotunnel Project Financing) in the negotiation of the Usage Contract between Eurotunnel, British Rail and the French National Railways. He also authored operations and maintenance cost reports, that were utilized in the information memorandum to secure Eurotunnel project financing from the world banking community.

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## THE NEWS CITED (AGAIN!)

by Bob Wright, Staff Writer

In what seems to have become a common occurrence the Phila. Section ASCE newsletter, has received yet another award for excellence. To those who know and/or have worked with the Editor of The News, Sid Robin (also known as the guy who can usually be found behind the piano at Section Meetings), this is really nothing new. THE NEWS has established a reputation, both locally and nationally, as a first-rate publication.

This time, both the New Jersey Section and the Philadelphia Section were cited for their quality newsletters by ASCE Zone I (Northeastern United States) and were awarded with Certificates of Excellence. The Certificate was given at the President's Luncheon of the Zone I Management Conference, conducted in Boston on January 31 - February 2. Section attendees at the Conference, Treasurer Tom Branigan and Secretary Bob Wright, as well as District 4 John Durrant and Section Past President Chuck Pennoni, accepted the Certificate on behalf of the Section.

At the February Section Meeting, Section President Rich Weggel awarded the Certificate to our Editor, Sid, who meekly (!) accepted.

Congratulations from all involved with the Section go out to Sid for his fine, tireless, ongoing (and often thankless) job with THE NEWS!

## TECHNICAL GROUP ACTIVITIES

Geotechnical and Environmental/Water Resources Group

(Combined Program for 1989-1990)

### March Meeting

Date: Tuesday, March 20, 1990, 7:00 PM

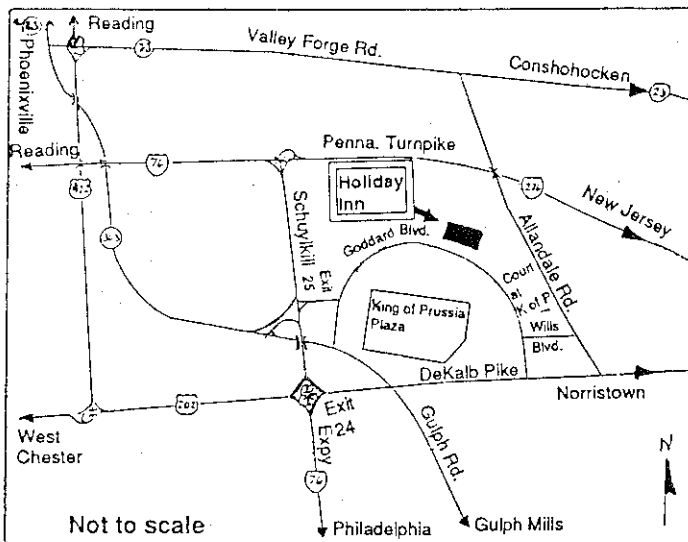
Location: Drexel University, Hill Seminar

Room, LeBow Engineering Center,

Market & 31st Sts, Philadelphia, Pa

Subject: Drilled Shaft Design & Case Histories, Philadelphia-Baltimore-Piedmont Area

(Continued on Page 2)



**LOCATION MAP  
for  
Holiday Inn,  
Goddard Blvd.,  
King of Prussia**

**NOTICE!! DINNER AT PHILA. SECTION MEETINGS WILL BE SERVED ONLY TO THOSE WHO CALL IN THEIR RESERVATIONS. FOR ALL MEETINGS - AS THEY ARE ANNOUNCED IN THE NEWS - PLEASE CALL PRESIDENT WEGGEL'S SECRETARY, KWEEING, AT (215) 895-2364 IMMEDIATELY.**

Luncheon charge at the March 13, 1990 meeting at Holiday Inn, King of Prussia: Member & Guests - \$20; Students - \$10.

## APRIL JOINT DINNER MEETING

Philadelphia Section, American Society of Civil Engineers  
Philadelphia Post, The Society of American Military Engineers

### TUESDAY, APRIL 17, 1990

OFFICER'S CLUB, U.S. NAVAL BASE, PHILADELPHIA

Cocktails - 5:30 P.M. Dinner - 6:30 P.M. Meeting - 7:30 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

(Rescheduled from December, 1989 meeting.)

**SPECIAL FEATURE: VILLANOVA UNIVERSITY NIGHT**

FOR RESERVATIONS FOR THE **APRIL 17, 1990 MEETING**, PLEASE CALL PRESIDENT WEGGEL'S SECRETARY, KWEEING, AT (215) 895-2364. DINNER CHARGE: Members and Guests - \$18.00. Students - \$9.00. STUDENTS: If you prefer, you are welcome to attend the Meeting after Dinner, at no charge.

## MARCH MEETING

(Continued from Page 1)

Mr Frank has over 15 years consulting experience involved with railroad operations and management. Previous to his employment with DeLeuw Cather he served as an operating official with the Santa Fe Railway.

Mr. Frank holds a BS/BA Transportation Degree from the University of Denver (1964), and an MBA (Marketing) Degree from Western Illinois University (1972).

**SPECIAL FEATURE: WIDENER UNIVERSITY NIGHT**

The ASCE Student Chapter, Faculty and Alumni of the Civil Engineering Dept. of Widener University will be honored at this meeting. All students, faculty and alumni are cordially invited to attend.

## Technical Group Activities

(Continued from Page 1)

Speaker: **Mr. Antal Partos**

Site Engineers, Mt. Laurel, NJ

Drilled Shafts are increasingly used as a deep foundation system, in part due to improvements in construction methods. Inspection has also been standardized, adding to the attractiveness of a technique that already has the feature of detailed inspection capability. It must be recognized, however, that there is often a higher reliance on the performance of large-diameter individual shaft units than on alternative deep foundation systems.

**Mr. Partos** is a prominent foundation engineer, and has been involved with the design for many large buildings and other structures. He will present a series of case histories illustrating the practice in this area, covering issues such as design, relationship to codes, inspection, installation in difficult sites, instrumentation and performance monitoring. The case histories include some that involved some degree of failure, and he will address the steps taken for remediation.

For further information, please contact:

**Geotechnical**

**Dr. J.P. Martin**

Dept. of Civil & Architectural Engineering  
Drexel University, Philadelphia, PA 19104  
215-895-2363

**Water Resources/Environmental**

**Mr. Raymond E. Lees**

Westinghouse Env. & Geotechnical Services, Inc  
323 Norristown Rd., Ambler, PA 19002  
215-542-9100

## CONCRETE 1990 AWARDS PROGRAM

The Concrete Construction Committee of Philadelphia, organized through the General Building Contractors Association for the promotion of quality in poured-in-place concrete construction, invites entries of any building using poured-in-place concrete for consideration in its 1990 Awards Program.

Entries must be received by **5:00 PM, May 15, 1990** at the GBCA offices, 36 S. 18th Street, Phila., PA 19103.

The submitted entries shall have been completed between **January 1, 1985 and April 15, 1990**, and must be located in Berks, Bucks, Carbon, Chester, Delaware, Lehigh, Monroe, Montgomery, Northampton, Philadelphia, or Schuylkill Counties in Pennsylvania; or in the state of Delaware. Buildings of all classifications, types and sizes are eligible, with equal emphasis given in judging. There is no limit to the number of entries by an individual or firm, and entries are not limited to members of the General Building Contractors Association. However, at least one member of the constructor team must be a Contributor to an Industry Advancement Program (IAP).

All projects incorporating poured-in-place concrete are welcome, including the following categories:

- Commercial - office buildings, hotels, retail sales and parking structures.
- Industrial - factories, warehouses and garages.
- Institutional - schools, churches and hospitals.
- Cultural - civic centers, theaters, libraries

- Environmental Projects - airport structures, incinerators and sewage disposal plants.

Awards will be in recognition of best in conception, originality, and innovative technology both in design and construction of poured-in-place concrete structures. The awards will be presented at the Annual Awards Dinner at the Union League of Philadelphia on June 13, 1990. For Official Entry Forms (which are required for consideration) and full instructions, contact the Awards Committee, 36 S. 18th St., Phila., PA 19013, PO Box 15959, **William B. Fellmeth**, Chairman, **215-568-7015**.

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**FOR**

**APRIL 1990**

**ISSUE**

**MARCH 13, 1990**

## FEBRUARY LUNCHEON MEETING

February 13, 1990

Drexel University Student Center

### PROFESSIONAL LIABILITY INSURANCE: PERSPECTIVE: EXPOSURES, RESPONSIBILITIES AND LIABILITIES OF DESIGN PROFESSIONALS IN THE CURRENT ENVIRONMENT

by Bob Wright, Staff Writer

An audience of approximately 30 members and guests attended the February Luncheon Meeting of the Philadelphia Section ASCE which was held at the Creese Student Center, Drexel University. The speaker was **Kenneth R. Wortley**, Head of the Professional Liability Department, the Paul M. Hertel and Company, Insurers, who was introduced to the attendees by Section Director **Alvin Zion**.

Mr. Wortley distributed an outline of his talk, which touched upon several important issues to Professional Engineers, both designers and construction contractors. He began with an explanation of current trends in the industry and the various attempts being made to minimize or eliminate liability exposure. He outlined the matrix of authority, responsibility and control as it relates to the design professional, construction contractor and owner, and followed with discussion as to how often the role of each in this matrix is misunderstood. For example, he related that it is common for designers to underestimate their roles and responsibilities on construction projects.

#### Risk Management and Exposure

Mr. Wortley discussed the concept of risk management as a method of reduction or elimination of exposure. Among the means which can be employed to manage risk are written contracts, peer review, detailed plan review/control, and initial review of claims (permitted in some states, not in Pennsylvania). Several examples of this were related by those present.

Mr. Wortley touched upon the basis for insurance fees. The four major points are frequency and severity of claims (Civil Engineers typically have high frequency with low severity); professional discipline; types of projects produced; and types of clients. The theme of engineers as "master builders" was also noted; as in this time of specialization, the concept may not necessarily have the meaning it once had.

Identification of hazards and site safety was outlined by Mr. Wortley as a prime area of claims and exposure. Contrary to common belief, OSHA has specific responsibility to employees, not employers and designers likewise have no responsibility on construction sites. It was noted that contractors' general liability policies should name architect/engineers and owners as additional insured to protect against employees of a contractor bringing suit against those entities, as the employee cannot sue his/her employer in Pennsylvania.

Mr. Wortley addressed the issue of shop drawings. These have been accepted as a responsibility of the designer as common practice, but are technically not part of the design process. A recommendation was offered to establish a strict procedure of review/acceptance of shop drawings to

protect the designer. Discussion followed on the use of "approved" versus "reviewed with no exceptions" on a stamp used by designers who must review and approve shop drawings. The outcome is that everything (including all dimensions and calculations) is not necessarily reviewed and/or approved as part of the review process. It was suggested by Mr. Wortley that a schedule of submissions be requested first by the shop drawing reviewer and that any additional information not on this schedule be returned at once.

Mr. Wortley emphasized that designers should obtain copies of the AIA publication "You and Your Architect," which delineates and explains the various responsibilities that the designer has to the owner. He ended his talk with a few attorney jokes and one somewhat humorous jab at engineers.

#### Discussion Period

An extended informal discussion question and answer period between speaker and members of the audience added special interest to the enlightening and timely subject.

The Phila. Section extends its thanks to Mr. Wortley for a fine presentation. Additional praise is tendered to President Rich Weggel, for his adroit schedule juggling to move the meeting site on short notice and to Director Al Zion, for his efforts in arranging this highly successful meeting.

## DREXEL UNIVERSITY SOLID WASTE FORUM

Drexel University announces its **Fourth Annual Forum on Science, Technology and The Humanities**, to be held at the University on **April 17-18, 1990**. This year's subject is **SOLID WASTE**.

**Tuesday, April 17, 1990 - 3:30 PM**, Mandell Theater Auditorium, 33rd and Chestnut Sts., Phila., PA.

*Speaker: Dr. Iraj Zandi*, National Center Professor of Resource Management and Technology, and Professor of Systems, Wharton School and School of Engineering, University of Pennsylvania.

*Topic: Solid Waste management Strategies: Misplaced Priorities.*

A Reception will follow in the Living Arts Lounge of Mandell Theater.

**Wednesday, April 18, 1990 - 3:30 PM**, Ruth Auditorium, Nesbitt College, 33rd and Market Sts., Phila., PA

Panel Discussion, chaired by **Dr. Bernard Hamel**, Director of Environmental Studies Institute, Drexel University.

#### Topic: Solid Waste: Who's Responsibility?

The panel of experts on Solid Waste management, representing the City of Philadelphia, private consultants, and academicians will analyze this complex subject.

Phila., Section, ASCE members and associates are cordially invited to attend. There is no charge, but because of limited seating, reservations are requested by March 30, 1990.

**Also wanted are submissions by interested individuals or firms - by March 30th - of posters on any aspects of Solid Waste Management, for a special Poster Exhibit Session to be held on both days of the Forum.**

For full information on the Forum, reservations and poster submissions, please call **Dr. Claire Welty**, Assistant Professor of Civil Engineering, Department of Civil and Architectural Engineering at Drexel, (215) 895-2281.

## ASCE PRESIDENT TESTIFIES ON CONSTRUCTION-SITE- SAFETY RESPONSIBILITY

Although it is better than last year's bill, National ASCE President **John Focht, Jr.** says that pending construction-site-safety legislation still has some problems. In Congressional testimony recently, he said changes that make the Contractor — instead of the Engineer who designed the project — responsible for general supervision and for construction-site-safety make current legislation better than last year's bill.

In focusing on some of the bill's weak points, Focht distinguished between issues that engineers could help address, and others that are outside their area of expertise.

"ASCE believes that critical temporary construction needed to facilitate completion of a permanent facility should be designed by a Registered Professional Engineer who is a consultant to, or an employee of, the Contractor," Focht said.

He noted that it is the unusual, but nonetheless spectacular, failures in this area of critical temporary construction, such as scaffolding, bracing, and shoring, that make the headlines. Mr. Focht said that design by qualified engineers could help prevent such collapses.

On the other hand, President Focht stated that job safety issues, such as wearing protective gear, are not within the area of expertise of most Civil Engineers.

He also expressed concerns about inadequate training requirements for the construction safety specialists who will work together with engineers to promote a safe work environment.

In commenting on worker accountability, one of the controversial areas of the bill, Mr. Focht stated that workers should be responsible for their actions.

President Focht testified before the Senate Committee on Labor and Human Resources on "The Construction Safety, Health, and Education Improvement Act of 1989" (S. 930).

## MEMBER IN THE NEWS

**POLK HONORED BY LOCAL CHAMBER OF COMMERCE**

William H. ("Bill") Polk, a dedicated member of the Philadelphia Section, ASCE for several decades, was recently honored by the Jenkintown, PA Chamber of Commerce, and State Representative Jon Fox. At a dinner hosted by the Chamber, at which SEPTA General Manager/Chief Operations Officer Louis J. Gambacine was principal speaker, Bill Polk was the recipient of the **Jenkintown Citizen of the Year Award**.

The Award is significant, because so many of Bill's accomplishments were achieved after his supposed "retirement!"

Following graduation from the University of Wisconsin in 1937, with a BSCE, and then pursuing studies toward an MBA with a Transportation major, Bill Polk's distinguished Civil Engineering career included important positions with structural steel fabrication companies; and others encompassing sales engineering and promotion, as an architectural and public relations representative. His earliest work was with the Chicago, Milwaukee, St. Paul and Pacific Railroad, where he fulfilled many assignments on the system throughout the Midwest and Lines West.

Bill's principal interest always has been transportation systems. He reclaimed his niche in that specialty in 1958 when he was transferred to Philadelphia by the Pittsburgh Plate Glass Co., with which he was associated for many years after temporarily leaving the railroad and transportation fields. In a short time, Bill became acutely aware of the tremendous value of – and the growing threat of the loss of – this Region's public transportation system, then totally under private ownership. In 1961, he was appointed Assistant Executive Director and Chief Transportation Engineer of the Passenger Service Improvement Corporation – created by the City of Philadelphia under then-Mayor Richardson Dilworth – to manage the City-funded commuter rail "Operation" Program. Shortly thereafter, Bill and a small group of assistants became the nucleus of the initial staff of SEPTA when it was established. He has also occupied many official posts on the staff of the Secretary of Highways in Harrisburg, and he was involved with the consolidation of the State's various programs and functions of the new Department of Transportation. He held many high administrative positions in this important agency. He retired from PennDOT in 1983.

Since retirement, Bill has kept busy as a member of various transportation organizations, technical societies and committees thereof. He is a Montgomery County representative on the Citizen Advisory Committee to SEPTA and a member of its Rail Subcommittee. Bill frequently attends SEPTA Board meetings and participates in activities of the SEPTA Coalition.

Locally, Bill founded the Jenkintown Station Improvement Committee and, through it, has

**THINK SPRING!! THE ANNUAL SPRING SOCIAL APPROACHES**

Saturday May 5, 1990  
Collen's Restaurant and Towne Hall  
Parke Towne Place, 2200 Benjamin Franklin Parkway, Phila., PA  
**DINNER, DANCING, FUN!!**  
Mark Your Calendar NOW!!

**IMPORTANT COMING PROGRAMS, SEMINARS & CONFERENCES**

**Lehigh University, Bethlehem, PA** – Center for Advanced Technology for Large Structural Systems (ATLSS):

**March 13-15, 1990** – "Failure Avoidance in Large Structural Systems"  
Registration fee – \$750.

**April 24-26, 1990** – "Welding Metallurgy and Fabrication in Bridges and Buildings."  
Program features Metallurgical Concepts; Welding Processing of Structural Steel; Fabrication Code Requirements; Service Performance Case Histories; Technology Update of Research.  
Registration fee – \$850.

For further information and phone registration for both programs, contact the Office of Continuing Education, Lehigh University, (215) 758-3935.

**ASCE National Professional Development Continuing Education Seminars**

**April 26-28, 1990** – Boston MA. "Structural Repair of Concrete And Masonry & Rehabilitation Planning." Practical aspects, including retrofitting existing structures to conform to current seismic and wind loading standards. Actual projects will be discussed. Fee – \$755.

**April 25-26, 1990** – Erie, PA  
**May 21-22, 1990** – New York, NY  
"How to Design Cost-Effective Storm Water Detention Facilities." A practical hands-on seminar showing how to design cost-effective detention systems that can meet local criteria and solve storm water run-off problems. Fee – \$595.

For full information on the ASCE National Continuing Education programs listed above,

worked with SEPTA to solve some problems and improve parking and other conditions at that busy and important station.

There is a special association between Bill Polk and your Editor in addition to their mutual ASCE interests. Bill is also the Number One fan at concerts of the Old York Road Symphony Orchestra, in which his lovely wife, Jean, share with your Editor a position in the First Violin section of the Orchestra!

The Philadelphia Section, ASCE congratulates its distinguished member on his latest recognition and Award.

contact Pamela Suett, Manager, Continuing Education, ASCE Headquarters, 347 East 47th St, New York, NY 10017 - 1-800-548-ASCE.

**AEG/ASCE Joint Symposium**

**April 19-20, 1990** – Sheraton International Hotel, Baltimore-Washington International Airport. Association of Engineering Geologists (AEG) and ASCE Maryland and DC Geotechnical Sections Joint Symposium: "Geotechnology and the Environment: Issues of the 90s." Topics to be addressed include: Pre-acquisition Site Assessments; Environmental Contamination and Remediation; Wetlands, Infiltration, and the Chesapeake Bay Protection Program; Well and Septic Systems and Solid Waste Disposal; Radon, Methane and Asbestos; Legal Implications. For registration and full information, contact **Lanny Helms**, c/o Foundation Test Service, 10215 Fernwood Road, Suite 250, Bethesda, MD 20817.

**ASCE 1990 National Forum on Education and Continuing Development for the Civil Engineer**

**April 17-20, 1990** – Las Vegas, NV  
"Setting the Agenda for the 90's and Beyond." This Quinquennial (every five years) Conference invites Educators, Practitioners, and Human Resources Managers to address the significant challenges faced by Civil Engineering education. The program includes 18 multi-disciplinary Tracks covering each of the major specialties and general concerns of Civil Engineering, including: Construction; Structures and Mechanics; Environmental Engineering; Hydraulics; Geotechnical; Transportation; Surveying and Mapping; Engineering Management; Materials; Computers; Student Quality/Quantity; Professional Development; Accreditation and Curricula; Design/Creativity; Professional Considerations; Cold Regions; Urban Planning; Aerospace.

For full program details and registration, contact: **Charles Day**, Director, Education Services, ASCE Headquarters, 347 East 47th St., New York, NY 10017- 1-800-548-ASCE (toll-free).

**Don't Forget to  
Send In Your Nominations  
for the 1990 Phila. Section  
Civil Engineering Awards**  
(See THE NEWS, February 1990 issue)