

the news



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

VOL. 58 - 6

OUR 73rd YEAR

March, 1986

MARCH DINNER MEETING

Philadelphia Section, American Society of Civil Engineers

TUESDAY, MARCH 11, 1986

Engineers' Club, 1317 Spruce Street, Philadelphia

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

Joint Meeting with the ASCE Women's Auxiliary

SUBJECT:

THE REBIRTH OF COMMERCIALIZED CITY CENTERS — THE ROUSE COMPANY'S FESTIVAL MALLS.

SPEAKER:

ROBERT M. CAMERON, Senior Vice President and Group Development Director, The Rouse Company, Columbia, MD

Mr. Cameron is no stranger to Philadelphia, having headed the Rouse team that successfully planned, designed and built the Gallery at Market Street East. However, Rouse's highly successful Gallery shopping center would **not** qualify as a festival mall, as **do** qualify their centers at Baltimore's Harbor Place and New York City's Fulton Fish Market, to mention just two of several phenomenally successful festival malls.

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APRIL JOINT DINNER MEETING

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

TUESDAY, APRIL 8, 1986

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

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

SUBJECT:

MEETING THE ENGINEERING CHALLENGES OF A MODERN NAVY

SPEAKER:

REAR ADMIRAL RICHARD F. BUTTS, USN, Commander, United States Naval Base, Philadelphia

Admiral Butts earned his Master's Degree in Science in July, 1963 at the Naval Post-Graduate School in Monterey, California. From 1969 to 1971, he was stationed at the Pentagon in Washington, D.C. in the office of the Chief of Naval Operations, Strategic Planning and Policy Division.

In August, 1985, Admiral Butts was named Deputy United States Military Representative to the NATO Military Committee at Brussels. He assumed his present duties as Commander of the U.S. Naval Base, Philadelphia on August 22, 1985. At the same time, he was appointed Commander of the U.S. Naval Bases at New York and Boston.

TECHNICAL GROUP ACTIVITIES

**Engineering Management Group
March Meeting**

Date: *Tuesday, March 18, 1986*

Subject: *"Use of the PC for Engineering Applications"*

Speaker: **Paul Degley**, Chairman, Engineering Group

Mr. Degley is currently Chairman of the Engineering Group, one of the 100 users groups that form the Philadelphia Area Computer Society (PACS). Mr. Degley will discuss computer specifications/selection for various engineering applications. The Engineering Management Group is currently considering an affiliation with Mr. Degley's Engineering Group. Such an association would allow us to receive publications and newsletters from PACS as well as attend their meetings and functions.

April Meeting (Date to be announced)

"Public Domain Software — Getting your hands on low or no cost software"

Our programs will be held at the Engineers Club, Philadelphia. The Schedule is:

5:00-6:00 PM Wine and Cheese

6:00-7:00 PM Program

7:00- Remaining Wine and Cheese

For more information, please contact:

Madeline Salomon, Committee Secretary

Peer Systems, Inc.

1218 Chestnut Street

Suite 1004

Philadelphia, PA 19107

(215) 925-3196

Geotechnical Group

March Meeting

Date: *Tuesday, March 18, 1986*

Engineers Club

(Wine & Cheese will be served at 6:30 PM)

Meeting at 7:00 p.m.

Subject: *"Methane Gas Protection Systems"*

Speaker: **Richard E. Mabry, P.E.**, Consulting Engineer

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For reservations for April Joint Meeting, please call Edwin Kucerik, U.S. Army Engineer District, Custom House, 2nd & Chestnut Sts., Phila., PA 19106, Phone (215) 597-0456/0457.

Dinner Meal Charges: ASCE Member—\$12.00 Students—\$6.00

Students: Note that your Dinner Charge is half price. Plan to attend for Dinner or Meeting after Dinner.

IMPORTANT!! 1985 - 1986 MEETING NOTICES

THE NEWS is now being mailed at Non-Profit Organization Bulk Rate. While this promises postage savings to the Section, *it also runs the risk of much longer delivery time from your local post office to your mail box.* Therefore, *please refer to your 1985-1986 Section Meeting Program Schedule* and mark your calendar for all meetings and social functions. Listed below is a summary of remaining meeting dates.

All Dinner Meetings —

Cocktails: 5:30 p.m. — Dinner: 6:30 p.m. — Meeting: 7:30 p.m.

Tuesday, April 8, 1986 —

Joint Dinner Meeting with Philadelphia Post,
Society of Military Engineers

Officers Club, U.S. Naval Base Philadelphia

Topic: *Meeting the Engineering Challenges of a Modern Navy*

Speaker: *Commodore Richard F. Butts, USN, Commander U.S. Naval Base Philadelphia*

Saturday Evening, May 3, 1986

Annual Spring Social

The Bourse Building, 5th and Market Sts., Phila., PA 19106

ANNUAL SPRING SOCIAL ALERT!!!

ATTENTION, ALL PHILADELPHIA SECTION, ASCE MEMBERS,
SPOUSES, RELATIVES AND FRIENDS:

It is Not too Early to Make Reservations for the Gala Annual Spring Social,
Saturday Evening, May 3, 1986.

This year marks a very special departure from previous Spring Socials. For this happy event, the Section's Planning Committee has reserved the **Great Hall of the Philadelphia Bourse Building**. This elegant building stands proudly just across the street from Independence Mall and the Liberty Bell, at 5th and Market Streets, Philadelphia.

Not only that — but as caterers for our dinner we have engaged the world-famous *Alfredo's of Rome* (whose restaurant just happens to be located in the Bourse Building).

Entertainment will be enhanced by the talents of our own violin "virtuoso", **Sid Robin** who, accompanied by his musical associates: "*The Smart Set*," will play a few numbers at the event. The orchestra will be playing "quiet" music for those who prefer to chat rather than dance, as well as more lively, danceable music for the fast-stepping yuppies.

The program will include several interesting larger-than-life photo-projections of the key accomplishments of incoming officers; and Presentation of *Philadelphia Section Annual Civil Engineering Awards* (please refer to the January, 1986 issue of THE NEWS for details and nomination forms). Other surprises are also in store.

Parking will not be a problem, since adequate on-street and adjacent off-street parking facilities are available.

The work and worry of our Planning Committee would be appreciably lessened if you will kindly complete the form below and return it as soon as possible to:

Ms. Deborah Brooks
c/o Kassner-Pierce Consulting Engineers
The Bourse Building, Suite 650
Philadelphia, PA 19106

Reservation Form for the Annual Spring Social, Phila. Section, ASCE, May 3, 1986
At the Great Hall of the Philadelphia Bourse Building
Independence Mall East, Philadelphia

Name: _____ Number of People Attending: _____

Address: _____

Telephone: _____

I would like to be seated with: _____

IMPORTANT PARKING PRIVILEGE NOTICE

Philadelphia Section, ASCE members are entitled to special parking rates after 5:00 P.M. for meetings at the Engineers' Club, through an arrangement between the Club and the E-Z Parking Garage on the east side of Broad Street, North of Pine Street. Have your parking ticket validated at the front desk of the Engineers' Club and your parking fee will be the special reduced price of \$3.00.

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Phone: (215) 322-7464

**COPY DEADLINE FOR
APRIL, 1986 ISSUE
MARCH 11, 1986**

MARCH MEETING

(Continued from page 1)

SPECIAL EVENT:

PRESENTATION OF LIFE MEMBERSHIP CERTIFICATES

SPECIAL FEATURE:

WIDENER UNIVERSITY AND SPRING GARDEN COLLEGE NIGHT

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

Please call Mr. deKovacs at the Engineers' Club immediately (215 735-5234), for reservations. Dinner Meal Charge.

ASCE Member—\$10.00 Non-Member—\$11.00 Students—\$4.00

STUDENTS — Note that your Dinner Charge is LESS than one-half price. Plan to attend for Dinner or Meeting after Dinner.

TECHNICAL GROUP ACTIVITIES

(Continued from page 1)

Program Host: **Moustafa A. Gouda, P.E.**, (609) 461-1239

Methane gas, a by-product of the decomposition of refuse in sanitary landfills, is a flammable gas and known to migrate within the underground environment, such that there are multitudinous possibilities through which the gas can enter building spaces. Thus, buildings constructed in the vicinity of or on top of sanitary landfills should be protected against potential methane gas problems.

The lecture will cover the methods of investigating methane quality and quantity, and the various aspects of protection systems. Case histories will also be presented.

Mr. Mabry has over 20 year's experience in Geotechnical Engineering. He has been involved with several major projects where methane gas protection was required.

Water & Environmental Engineering Group March Dinner Meeting

Date: *Tuesday, March 18, 1986*

Engineers Club

Dinner — 5:30 p.m.

Lecture — 7:00 p.m.

Subject: *"Surface Water Intake Technology — Passive Screens"*

Speaker: **Donald Featherman**, Eastern Sales Company, Bethlehem, PA

Donald Featherman is a graduate of Pennsylvania State University in Electrical Engineering. He was employed by Southwest Industries, Research Cottrell and UOP in positions relating to environmental protection of air and water.

In 1979 he started the Eastern Sales Company which is an exclusive representative of Johnson Surface Water Screens.

Since surface water represents nearly two-thirds of all water used in North America, and passive screening is considered to be very effective and practical from the environmental point of view, this should be an interesting and

informative session. The topics that will be covered include:

1. Design concept of the screens.
2. Use of air backwash in cleaning the screens.
3. Passive screening applications and limitations.
4. Information required for proper system design.
5. Cost effectiveness.

Dinner Cost: \$10.00, \$5.00 for students

Reservations: *Call either Dr. H.Y. Rajagopal ("Raj") (215) 422-3032 or Farid F. Mansour (215) 422-3376. Preferably by Friday, March 14, 1986*

WOMEN'S AUXILIARY

March Meetings

After a two-month winter break (there were no regular Luncheon-Meetings in January and February, 1986), the Section's Women's Auxiliary resumes its activities with a Luncheon-Meeting at the Engineers' Club on *Wednesday, March 19, 1986, 12:00 noon*. The Auxiliary's own Past President, **Mary (Mrs. Edwyn L.) Shoemaker** will make a slide presentation on *"Travels in Jordan"*, a trip she and Ed enjoyed in this picturesque country of the Middle East.

DON'T FORGET THE JOINT MEETING WITH THE REGULAR SECTION MEMBERSHIP ON TUESDAY EVENING, MARCH 11, 1986 (See page one for details).

Auxiliary members are urged to recruit Philadelphia Section member spouses to join the splendid organization and to take part in its varied and interesting activities. For more information and applications for membership, please contact Membership Chairman **Marie (Mrs Kenneth J.) Zitomer** at (215) 548-5324.

**INVITE YOUR
ASSOCIATES TO
ALL ASCE MEETINGS!**

JANUARY MEETING

January 14, 1986 Engineer's Club Philadelphia's Waste Management Update

Editor's Note: With thanks to Staff Writer Michael Peleszak for his able assistance.

The Philadelphia Section, ASCE membership and the Civil Engineering Department of Drexel University — which was honored at the January 14, 1986 Section meeting — enjoyed an enlightening evening, which featured a talk by the City of Philadelphia Commissioner of Streets, the **Hon. Harry M. Perks**, whose subject was: *"An Update of the City's Comprehensive Solid Waste Management Study."*

Drexel University Night

The meeting focused on the ASCE Student Chapter, Faculty and Alumni of the Civil Engineering Department of Drexel University. More than fifty loyal sons and daughters of the C.E. Department attended to be feted.

Tracey Copulos, President of the Drexel ASCE Student Chapter, thanked the Section for its courtesies and introduced her fellow Chapter officers, affiliates and liaison coordinators: **John Wall**, Vice President; **Jim Hill**, Recording Secretary; **Doug Dove**, Membership Secretary; **Dave Barbalace**, Treasurer; **Ken Davis**, Student Civil Engineering Department Head and Liaison between Faculty and Civil Engineering Students.

Ms. Copulos reviewed highlights of the Chapter's outstanding year. The membership drive was highly successful; personal visits to classes yielded sizable dividends, especially amongst freshmen. By this direct communication, students were more readily indoctrinated in the advantages of ASCE affiliation and Student Chapter membership. The Chapter participated in the ACI-sponsored reinforced concrete beam competition — a rewarding annual event. Chapter members also won first-prize awards in the Annual Pennsylvania-Delaware Student Chapter Conference and Paper Competition.

The Chapter was involved in numerous community and civic activities, including sponsoring a Christmas party for the needy citizens in the neighborhoods adjacent to the campus. An agenda of excellent subjects, speakers and programs attracted good attendance at Chapter meetings. Several social and athletic events rounded out a full, progressive year of action and development.

(Continued on page 4)

YOUNGER MEMBER FORUM SEEKS PROGRESSIVE SCHEDULE

Following are the results of the YMF Direction Survey conducted this past Fall. Eighty-eight (88) members responded.

The basic intention of the survey was to determine particular activities for the YMF to pursue. Eleven fields were chosen, and members

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JANUARY MEETING

(Continued from page 3)

Dr. Pipes Reviews Programs

Dr. Wesley O. Pipes, Head of the Department of Civil Engineering at Drexel, described the gratifying increase in numbers of Civil Engineering undergraduates, seniors and graduate students. Because of increased outside support and University subsidies to the Department, funds for a new structural testing laboratory have been made available, with large-capacity machinery for sophisticated testing of materials of construction and soils. Under the direction of Prof. Robert M. Koerner (Phila. Section Past President), advanced programs in geo-textiles, synthetic liners, membranes and fabrics in soils reinforcement have placed Drexel in the forefront of research and development in this specialty. Renowned teachers and scientists from around the world have travelled to Drexel to observe, study and lecture on these subjects.

Dr. Pipes expressed his appreciation for the Section's honoring the Drexel Civil Engineering Department at the meeting, and he introduced faculty members, alumni, and students to rise in recognition. Distinguished faculty members present were Dr. Bernard M. McNamee and Kenneth J. Zitomer, both Past Presidents of the Philadelphia Section.

An Evangelist for the Trash Crisis

Philadelphia Commissioner of Streets, the Hon. Harry M. Perks, has had to become an evangelist for the trash crisis, due in part to the very nature of his Department. The Department of Streets currently collects an average of 3200 tons of solid waste a day. The disposal costs of the solid waste is \$43 million a year and is expected to continue to rise. Mr. Perks points out that the Regional, as well as the National, crises and their possible solutions may well create the largest public works project in the last 15 years.

Although the trash crisis has hit the cities hard, the effect may be felt, to a larger degree, in the smaller townships and municipalities. Four and five fold rate increases in handling and hauling, have engendered trash disposal costs greater than the outlays for the Police, Fire and Governing Departments of many municipalities.

Mr. Perks' Department is constantly burdened by the people who have used illegal dumping as a solution to getting rid of their trash. In addition to being unsightly, illegal dumping in fields and open lots poses hazards to human health and safety.

How Did We Get Here?

As Mr. Perks pointed out, the trash crisis was a long time coming and the solutions will not be found overnight. One of the contributing factors to the problem is the dependence on landfills. Of the 1100 landfills operating 10 years ago only 127 were still operating three months ago. In fact, the estimated landfill capacity for the Delaware Valley region is approximately 2 years.

The inhibiting factors to some possible solutions are: the decline in the popularity of

resource recovery; the difficulty in capturing public support and lastly the drop in energy costs. In addition to these is the ever present problem of the crisis being used as a political pawn. The possible solutions are many and should be used as parts of an overall comprehensive solution. Recycling, composting, volume reduction and others are some of the principal elements in the solution.

The Integrated Solid Waste Management Program

The idea of "refuse derived fuel" (RDF) is another part of this solution, which Philadelphia is hoping to use as a way of helping to solve the problem. The RDF plan will use almost one half of the trash generated from the city's collections. The main components of the city's Plan are three RDF plants and two boiler facilities, that would turn the RDF to usable steam energy. Mr. Perks also explained many more important points of the city's RDF plan, including recycling, energy recovery, incineration, residue land-filling, and privately-owned facilities.

Question and Answer Period

There were many penetrating questions and comments from members of the audience, many of whom are private specialists and engineering consultants in the field — in addition to staff officials of the Department of Streets. Commissioner Perks responded unwaiveringly to the controversial issues frequently raised in the discussion (often with the wit of a true diplomat). He freely solicited the assistance of the experts in the audience when their perceptive observations were of value. Only the constraints of time ended the enlightening discourse.

President Ira N. Pierce extended the Section's gratitude and congratulations to our distinguished speaker for his outstanding presentation, and for the praiseworthy accomplishments which he and his Department have achieved in battling one of the most formidable and critical problems of our time.

YOUNGER MEMBER FORUM

(Continued from page 3)

were asked to indicate those that they felt would develop each member technically, socially and professionally while demonstrating his/her value to ASCE as individuals and as a forum.

Field	No. of Votes	%
Community Activities	35	40
Social Activities	42	48
Professional Activities	78	89
Student Liaison	39	44
Awards and Prizes	13	15
Public Information	28	32
Field Trips	59	67
House and Hospitality	5	6
Membership	29	33
Newsletter	41	47
Program	18	20

Professional Activities was chosen most frequently (89%) by the younger members. Many expressed a desire for more information on three (3) aspects of Civil Engineering: job, education and training opportunities. *Field Trips* placed second (67%) with members suggesting more field exposure and awareness. *Social Activities, Newsletter, Student Liaison* and *Community Activities* also fared well.

Now that the Younger Members have chosen several areas of interest, I am seeking volunteers for guest speakers and invitations for field trips to help in developing a progressive Younger Member roster for this coming year.

The Mohawk-Hudson Section will host the Fourth Annual Northeast Regional Younger Member Council Meeting on April 4-5, 1986. This meeting will provide ideas and successful examples of how to attract and keep Younger Members involved in Section activities. This year's theme will be "Opportunities in ASCE — Younger Member Awards."

If you desire full information on the survey and other details about becoming involved with the Younger Member Forum or wish to offer helpful suggestions, please contact Anthony Micciolo, c/o Philadelphia Water Department, Design Division, One Reading Center - 2nd Floor, Philadelphia, PA 19107. Phones: work, (215) 592-6295; home, (215) 744-8767.

Respectfully, Anthony M. Micciolo, President, Associate Member Forum, Phila. Section, ASCE

NEWS NUGGETS

Urban Planning Engineers enjoy unique life styles. They have their own definitions, too. For instance — they define nuclear plants and sanitary landfills as LULU's: Locally Udesirable Land Use! (Submitted by Section Vice President Al Tantalala).

"What should I do to relieve the water on my knee?" the woman asked the quack. "Wear pumps."

BACKTALK

(Reprinted from Machine Design Magazine)

Anti-John Guns

We recently heard this unconfirmed story about a military anti-aircraft gun program that was apparently having more than its share of development problems. It seems that a large group of officials were invited to watch a demonstration of the weapon at a test site. The gun was to use its heat-seeking sensors to lock onto the target, then fire.

The gun was activated and the target flew into range. The sensors dutifully picked up the heat signature of the warmest object in the area and then proceeded to blow to flinders a line of portable toilets next to the reviewing stand.