



AMERICAN SOCIETY OF CIVIL ENGINEERS

Vol. 49 - No. 7

Our 64th Year

APRIL, MAY, 1977

MAY MEETING

Philadelphia Section, American Society of Civil Engineers
Sponsored by the Transportation and Urban Development Group

TUESDAY, MAY 10, 1977

Engineers' Club, 1317 Spruce Street, Philadelphia

Cocktails — 5:30 P.M.

Dinner — 6:30 P.M.

Meeting - 7:30 P.M.

SUBJECT:

NORTHEAST CORRIDOR IMPROVEMENT PROGRAM

SPEAKER:

E. PAUL BRAUCHER, Federal Railroad Administration Program Manager for Philadelphia Area (Three States)

PROGRAM HOST:

THOMAS J. LUGLIO, Chairman, Transportation and Urban Development Group



E. Paul Braucher received his B.S. Military Engineering, U. S. Military Academy; M.S. Civil Engineering, M. I.T.; M.S. International Affairs, George Washington Univ.

He served in various Infantry Divisions in Germany; as Chemistry instructor at West Point, and military service in Korea, Japan and Vietnam. He was Engineering Battalion Commanding Officer at Fort Bragg; and Defense Advisor U.S. Delegation to NATO in Paris; Member of Operations Directorate for Joint Chiefs of Staff; Commander of Defense Industrial Supply Center in Philadel-

phia. Retired from Army in 1975 as Brigadier General, and joined DYNATREND Incorporated — Management support Contractor to FRA. He is FRA-NECIP-Program Manager.

Mr. Braucher has received numerous honors and awards and is a member of several fraternal, social, civic and professional societies including the Society of American Military Engineers in which he served as president of the Phila. Post.

Mr. Braucher will discuss the \$1.9 Billion Northeast Corridor Improvement Program to rehabilitate the 456 mile railroad system between Boston and Washington. He will discuss the specific objectives mandated by Congress and the component to be improved including track, curve realignment, bridges, tunnels, electrification, signaling and traffic control, service facilities, stations, fencing and grade crossings. The scope of work, the major factors and the current status including the role of Philadelphia will be highlighted in an interesting and informative visual presentation.

Free Beer and Refreshments at the Meeting
Mail Reservation Cards Immediately — Win a FREE DINNER!

STUDENTS — Plant to attend for Dinner (Half Price) or meeting after Dinner

LIFE MEMBERSHIPS AWARDED

The Annual Awarding of ASCE Life Memberships was a pleasant Special Feature of the March 8, 1977 Philadelphia Section meeting. The articulate and genial moderator was Lewis Caccese, long an active member and Past Director of the Section. He also is President of the Central Jersey Branch of the New Jersey Section.

Life Membership Awards were made to six members. Present at the March meeting to receive their certificates in person were:

> Thomas H. Dale, Jr. Harry F. Irwin Albert Kandra J. Cal Callahan

The recipients acknowledged the awards with brief remarks to the audience

The following awardees were not in attendance:

David M. Smallwood Roy F. Weston

Arrangements were made to mail the certificates to these individuals.

The Philadelphia Section congratulates all the Life Membership recipients for their faithful service to the Society and to the profession.

Notice: If THE NEWS arrives late—or you forget to mail your dinner card, please call The Engineers' Club, PE 5-5234 and leave word for Mr. deKovacs, Exec. Mgr., to reserve a dinner plate for you. Of course, you are welcome for the meeting later, if you are unable to have dinner. No reservation necessary.

HERE IT IS

!! The Annual Spring Social!!

SATURDAY, MAY 14, 1977

BALA GOLF CLUB

50th St. and Woodbine Avenue, Philadelphia

LISTENING AND DANCING PLEASURE to the Melodic Strains of RONNIE DRAKE'S Orchestra Entertainment by "SOMETHING EXTRA" Barber Shop Quartet

> COCKTAILS - 6:00 to 7:00 P.M. (Cash Bar) DINNER — Prime Ribs of Beef — 7:00 P.M.

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SPECIAL MAY LUNCHEON - MEETING

Sponsored by the Transportation and Urban Development Group

FRIDAY, MAY 27, 1977

Engineers' Club, 1317 Spruce Street, Philadelphia

Cockteils 11:30 A.M.

Luncheon 12 Noon

Meeting 12:45 P.M.

SUBJECT:

PUBLIC WORKS

AND TRANSPORTATION FROM A CONGRESSMAN'S PERSPECTIVE

HONORABLE ROBERT W. EDGAR, Congressman, Seventh District, Penna. PROGRAM HOST:

THOMAS J. LUGLIO, Chairman, Transportation and Urban Development Group

Congressman Edgar earned his B.A., History and Religion, Lycoming College, Master of Divinity Degree, Drew University, and a Certification in Pastorial Psychiatry, Hahnemann Medical College.

He was Athletic Coach at Drew University, and served various Pastorates in Pennsylvania, most recently Lansdowne United Methodist Church, assistant pastor United Protestant Chaplain of Drexel University. He was elected to U. S. Congress in 1974, and serves on the following Committees and Subcommittees:

Public Works and Transportation

Aviation

Economic Development

Public Buildings and Grounds

Surface Transportation

Veterans' Affairs

House Select Committee on Assassinations

Congressman Edgar is also very involved in many civic, social and welfare organizations.

RESERVATIONS — Because of the anticipated large turnout for this meeting, reservations must be made by Tuesday, May 24, 1977 by calling Marianne Green, DYNATREND Incorporated at 564-1235.

GEOTECHNICAL GROUP PROCEEDINGS PUBLISHED

The 1974-1976 Proceedings of the lecture series "Geotechnics - A Bicentennial State of the Art, 1976, sponsored by the Geotechnical Group of Philadelphia Section ASCE is now available. This 274 page volume features such

Geotechnics: 1776 - 1976 - ?" by James K. Mitchell; "Site Preloading", by Donald L. York; "Design and Installation of Earth Tiebacks", by James W. Sigoureny; "Slurry Trench Wall Design, Construction and Performance", by Ralph E. Brown; "Field Measurements in Geotechnical Engineering", by Ronald E. Smith; "Design Techniques for Deep Foundations", Robert M. Koerner; "Franki Pressure Injected Footings and Their Use in the Middle Atlantic Region", by Michael R. Demosak; "Drilledin-Caissons: Design Considerations", by William S. Gardner; "Drilled Pier Foundations, A Contractors View Point", by Joseph Puglia

To receive this worthwhile investment at an introductory price of \$15.00 plus postage send \$17.53 to S. V. Nathan, c/o Woodward-Clyde Consultants, 5120 Butler Pike, Plymouth Meeting, Pa. 19462, Phone: (215) 825-3000. For further information call Bob Waitkus, Drexel University, Phone (215) 895-2350.

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THE PRESIDENT'S MESSAGE

Reflecting on the activities of the Philadelphia Section over the past year, we have had successes and we have had failures. The successes are due to the tireless efforts of those members who dedicated themselves to the Society through leadership, serving on committees, participating in technical group activities, performing mundan chores, or just by loyal attendance at society functions. The failures are due to lack of interested participation by many who are satisfied just to belong.

Our biggest success, of course, was hosting the National Convention. The publication of "The History of Civil Engineering and Construction in the Delaware Valley" is a landmark of engineering progress in spite of the trials and tribulations of getting it published. Our Technical Groups have been extremely active with many good programs for those seeking to keep abreast of engineering changes and progress. Good programs were provided at our Section Meetings. The routine affairs of the Section were capably managed by your elected representatives. "THE NEWS" continues to be the highest quality newsletter of any Section in the Society. There are too many persons involved for me to name all of you who contributed to our successes. But you know who you are and I thank you for your efforts,

Perhaps through insufficient inspiration from the top, some persons did not contribute as much as I had envisioned. This was disappointing to me, personally, but I share the responsibility in our failures. Though we may hitch our wagon to a star, we often do not reach that far. So we have a challange for each of us to do a little bit better in the future.

I am sure our new Officers will inspire us to plan and strive for new goals in the future. How better to show them our support in beginning a new year than to attend the Installation of Officers and the highlight social event of the year at Bala Country Club on May 14. Hope to see many of you there.

Will M. Heiser, President

Editorial:

THE HEISER PRESIDENCY

There is a time-honored maxim that if you want a job done thoroughly, get a busy man to do it. This has been the Phila Section, ASCE experience in the Presidential term of Will M. Heiser, now approaching its closing weeks.

Will Heiser's dedication to the job has been exemplary, in the face of the myriad demands on his time and talents by his business; other professional organizations; civic and religious groups with which he is affiliated and in whose affairs he is an active participant. "... I advocate looking forward to the future and not backward to the past ..." he announced in his President's Message upon assuming office last September. He has followed that dictum with unfaltering resolve and purpose.

Mr. Heiser's tenure encompassed the historical and memorable Bicentennial Anniversary of the United States. The Phila. Section recorded its mark in that celebration by hosting the ASCE Annual National Convention and Exposition, September 27 - October 1, 1976. Capitalizing on the great contribution of his predecessors to the progress of the Section, President Heiser has scored his own distinguished qualities through successful efforts in establishing the mechanisms for expanding membership; increasing the scope of professional

activity of the Technical Groups and Committees; and liaison with college Civil Engineering Departments and Student Chapters. Largely through Will's intense personal involvement and assistance, the Phila. Section fully cooperated in the establishment of the Reading Branch. The fledgling affiliate of the Phila. Section has quickly matured to occupy a distintive place in the ASCE family, and it is a source of great pride to our Section.

The Phila. Section has enjoyed this year one of the closest relationships with the Women's Auxiliary in the history of the splendid group. This is no accident, because Mrs. Heiser (Audrey), a Past President, is one of its most vital forces, donating tirelessly of her time and efforts toward its continued successes.

Good work, Will Heiser! Your guidance and counsel can only be inspirational and encouraging to incoming President Walter Clark. We are confident of your continued benevolent service to the Section for many years to come. We thank you for all you have done and we wish you well in all your pursuits.

We extend our welcome by hand and heart to Walter Clark, your worthy successor as President of the Phila. Section, ASCE. He has our pledge and promise of support in his new, tough job.

MARCH MEETING

Engineers' Club

March 8, 1977

Editors Note: THE NEWS is indebted to David M. Barr, III - Vice Chairman of the Structural Group, for his assistance in the following writeup.

The Philadelphia Section's Structural Group, under the enlightened chairmanship of Dr. George Bathish, Professor of Civil Engineering at Widener College, hosted the well-attended March meeting. Conrad P. Heins, Ph.D., Professor of Civil Engineering, University of Maryland, spoke on the subject: "State of the Art of Moderate Length Box Girder Bridges — A Look at Japanese and American Design Provisions."

Dr. Heins filled in gallantly on very short notice for the originally scheduled speaker: Frank Dr. Sears, Chief of the Review Section, Bridge Division, Federal Highway Administration. Mr. Sears was called away on urgent government business the day of our meeting. Section President Will M. Heiser presided and Dr. Bathish was the capable Program Host for the highly interesting and successful session.

"Villanova University Night"

The meeting honored the ASCE Student Chapter and Civil Engineering Department of Villanova University, and about 30 students, alumni and faculty members attended. Faculty Advisor Dr. Lewis J. Mathers presented C. E. Department Chairman Dr. Edward Wallo. who introduced the Student Chapter officers, Phila. Section Contact Members. faculty, staff, students and alumni, 1976 Student Chapter President William Gilman reviewed highlights of the Chapter's busy and productive year. These activities included a Careers Conference; hosting of the Pa. - Delaware Student Chapter Conference; sports competitions and events; and prominent participation in the National ASCE Convention hosted by the Philadelphia Section in the Fall of 1976,

1977 Student Chapter President Robert Lund expressed, on behalf of the (continued on page 4)



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MAROH MEETING

(continued from page 3

Chapter, appreciation of the Section's honoring Villanova at the meeting.

Dr. Heins Returns to Familiar Ground

Dr. Heins received his B.S. from Drexel University, his M.S. from Lehigh, and his Ph.D. from the University of Maryland. As a Drexel graduate, he was glad to return to the area to meet several ASCE members who were his teachers or co-op program supervisors during his undergraduate days.

In the years since his Drexel graduation, Conrad Heins has steadily developed his interests in the analysis, behavior, loadings, fatigue failure, and design provisions of continuous beams, curved girders, box girders and orthotropic bridges. He has engaged in considerable research, teaching, and publishing. Among his publications are two textbooks: "Bending and Torsional Design in Structural Members" and "Applied Plate Theory for the Engineer." In addition, Professor Heins has published 70 articles in several technical journals.

He is a member of the ASCE and serves on the Committee on Metals and the Safety and Reliability Committee. He is also a member of the ACI, the Society for Experimental Stress Analysis, the American Society for Engineering Education, and the Transportation Research Board Bridge and Field Test Committee.

Professor Heins was recently awarded the University of Maryland Engineering Alumni Distinguished Professor Award for 1977 and the Washington Academy of Sciences Scientific Achievement for Engineering Sciences Award for 1976. "State of the Art..."

Professor Heins' talk was illustrated by slides, and he began by showing many examples of Japanese bridges. Among them were arch, cable-stayed orthotropic box, and curved box girder bridges in Kobe and Osaka. The cable towers varied from a single tower to A-frames and H-frames. One interesting slide showed the ramp of a high level bridge decending to the ground in a corkscrew alignment. Dr. Heins explained that the helix was used because of limited right-of-way. The helical bridge was constructed of curved box spans.

Our speaker then introduced the theory behind lateral bracing to resist bending, torsion, and distorsion. He illustrated this with slides of a curved box girder bridge at the interchange of Interstate Routes 695 and 83 in the Baltimore area. Dr. Heins explained how a computer program was used to

solve the lengthy simultaneous equations via matrix methods. He then reported on the results of the computer analysis and compared these to the results which were obtained using an approximate solution method.

The third phase of Dr. Heins' talk dealt with the test program, both in the field and in the laboratory, which further developed the bracing design equations. Using a steel frame, bracing by various configurations of internal diaphragms, and even cold formed decking, the load response of a box element could be verified.

Dr. Heins distributed copies of a report which described the various recent research studies on box girder bridges and which closely followed the text of his talk. After his formal presentation, Dr. Heins answered questions and participated in discussions on bridge design and behavior. Dr. Bathish presented Conrad Heins with the Section's Certificate of Appreciation for his excellent presentation.

APRIL JOINT MEETING

135 members of the Phila. Post, Society of American Military Engineers and the Phila. Section, ASCE assembled at the beautiful Officers' Club, Phila. Naval Base, on Wednesday, April 13, 1977, for the Annual Joint Meeting of the two Societies. In the general atmosphere of the Club, a delicious dinner was served and an excellent talk was delivered by Captain Kenneth A. Wiman, Captain of the Port of Philadelphia/ Commanding Officer, U. S. Coast Guard Base, Gloucester City, N. J. Presiding at the meeting was S.A.M.E. President Harry V. Dutchyshyn, Colonel, Corps of Engineers. Phila. Section, ASCE President Will M. Heiser delivered welcoming remarks and thanked our hosts for their hospitality. Mr. Heiser also announced planned Section activities for April and

Captain Wiman, a U. S. Coast Guard Academy graduate, holds a B.S. Degree (continued on page 6)



WATER RESOURCES DEVELOPMENT

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TECHNICAL GROUP ACTIVITIES

Construction

The final meeting of the year was held Tuesday, April 26, 1977, at the Engineers' Club.

The subject: Construction Planning at the Operational Level.

Richard A. Holstein, Supervisor of Planning/Scheduling and Cost Engineering, The Bechtel Corp., was the speaker.

The discussion centered on various levels of Plans, Schedules, and Tracking Systems for labor and materials throughout the Engineering, Procurement, and Construction phases of a large project. His principal current project is the Limerick Generating Station of Phila. Electric Co.

Have an idea for a meeting next year? Want to help with the Construction Group? Please call Chairman Fred Plotnick at 215-327-1200 X-495 days, 215-782-1246 evenings. We need your support!

Geotechnical

A meeting was held on April 19, 1977 at the Engineers' Club.

The subject: Liquefaction.

Dick Ladd, Woodward-Clyde and Salah Abdelhamid, Dames and Moore, were the principal speakers.

The talks highlighted methods, interpretation, suitability and problems of the current soil tests with emphasis on the dynamic aspects.

Dennis J. Mohan, Chairman of the Geotechnical Group, was Program Host.

Hydraulies and Sanitary

Date: Wednesday May 18, 1977 5:00 p.m.
Dinner at 7:00 p.m.

Place: DuPont Chambers Works, Deepwater, New Jersey

Subject: Industrial Wastewater Treatment by Combined Activated Sludge and Activated Carbon

Speaker: Mr. Dennis Dunagan, DuPont Program Host: Harold Gilman

A tour and discussion has been arranged at one of the largest plants (40 mgd) utilizing powdered activated carbon for wastewater treatment. The discussion will consider the advantages of utilizing powdered activated carbon together with activated sludge relative to waste treatment and sludge settleability. A "mini plant" to continuously monitor toxic waste loads will also be featured.

Structural

A Luncheon-Meeting was held on April 22, 1977 at the Engineers' Club.

Speakers were Charles Parrott, Architect, National Heritage Corp., West Chester, Pa. and Carl Baumert, Structural Engineer, Keast and Hood, Phila.

The subject: Relocation of the Historical Gruber Wagon Works in Bucks County.

Structural (continued)

Date: Friday, May 20, 1977

12 Noon Luncheon

Subject: Structural Aspects of the Limerick Nuclear Power Plant

Speaker: **David Marano**, Engineer-in charge, Civil Section, Philadelphia Electric Co.

Program Host: Dr. George N. Bathish, Chairman Structural Group

Transportation and Urban Development

A Luncheon-Meeting was held on April 19, 1977 at the Engineers' Club.

The topic: Philadelphia International Airport — Expansion and Modernization Program — Progress and Status

Guest Speaker was Gordon Jacobson, Development Program Coordinator, Philadelphia International Airport.

Mr. Jacobson discussed the progress that has been made in transforming Philadelphia's Airport to accommodate the people, freight and aircraft of the 1980's. Slides showed runways, terminals, access roads and related facilities, completed in recent years.

WOMEN'S AUXILIARY

The final monthly function of the current season is the ever-popular luncheon-Meeting at the Whitemarsh Country Club, Lafayette Hill, Pa. on Wednesday, May 18, 1977. New officers for 1977-1978 will be installed. Other business, as is customary at this affair will be kept to a minimum. For entertainment, Guitarist Bill Alberts will play and lead a "sing-along". Auxiliary members are invited to bring guests to this meeting.

As the 1976-1977 season winds down, the most important event is, of course, the Annual Spring Social at Bala Golf Club on Saturday, May 14, 1977 (See page two for details).

All Women's Auxiliary members are urged to resolve to be more active the balance of this year and next year. Help to enlarge the membership roster by recruiting wives of Section members to enroll as soon as possible. Convince them to apply NOW for membership and to enjoy all the pleasant associations and activities of this wonderful group of women.

STUDENT CHAPTER NEWS

Villanova — New Officers and Upcoming Events

The newly elected Student Chapter officers for the year 1977 are as follows:

Bob LundPresident
Tom BreslinVice-President
Charlene O'Connor ...Treasurer
Leonard DiscenzaSecretary

The new offiers have succeeded in generating enthusiasm as demonstrated by the many students who attended "Villanova Night" at the Engineers' Club in Philadelphia. Thanks goes to the Philadelphia Section for their kind invitation to honor us,

The Chapter held its monthly meeting March 24th and the speaker was Jonathon P. Naylor of Vincent Kling and Partners. The architectural firm of Vincent Kling will be in charge of the planning and construction of a new student union center for Villanova and Mr. Naylor discussed this new facility.

The April meeting is scheduled for April 19, featuring Ralph Powell, a lawyer with an undergraduate degree in engineering, whose topic will be "Liability As An Engineer". The Society's social calendar includes the first TGIF ("Thank God It's Friday") of the semester, a volleyball game with the IEEE, and a picnic and softball game scheduled for April.

Of course we can't forget to mention our concrete canoes. We have started constructing two canoes and they already appear to be far superior to any of the ones built in the past. This can only mean victory for Villanova at the concrete canoe races being held at Bucknell University April 15 and 16.

ITEMS OF INTEREST

Justin and Courtney, (Division of O'Brien and Gere Engineers), has expanded its facilities and moved to the following location. Suburban Station Building, 1617 J. F. Kennedy Boulevard, Philadelphia, Pennsylvania 19103. Phone: (215) 564-4282.

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ASSOCIATE MEMBER BRIEFS

Congratulations to Tom Luglio

Thomas J. Luglio, Chairman of the Transportation and Urban Development Group has accepted a position as a Transportation Engineer with Dynatrend Inc. In this capacity Tom will be responsible for monitoring the design contract for the Northeast Rail Corridor Upgrading Program being administered by the Federal Railroad Administration.

Tom was formerly employed as a planning engineer at SEPTA and a design engineer with Howard, Needles, Tammen and Bergendoff.

Tom lives with his wife Cheryl in Haverford. He is a graduate of both Drexel University (B.S.) and the University of Pennsylvania (M.S.). He has long been active in ASCE. In addition to his technical group activity, he is a member of the Associate Member Forum has served on the Finance and Audit Committee, and was a Session Assistant Day Captain at the recent National Convention hosted by the Phila. Section.

We think all will agree that Tom has done an outstanding job with the T & U D program this year. And he has two more good meetings planned (see announcements, this issue). Make a special effort to attend.

MEMBERS IN THE NEWS

Erwin Huber, formerly Assistant Division Engineer for the Philadelphia Water Departments Construction Branch has been named Acting Chief of Surveys for the Water Department.

In addition to his Survey Unit responsibilities, Mr. Huber is familiarizing himself with plans for the Water Department's Northeast Sewage Treatment Plant Project, a \$200 million expansion program which is expected to be under construction within the year. Mr. Huber a Professional Engineer and Registered Surveyor, will be the Resident Engineer on this project.

Erwin lives in the Frankford Section of Philadelphia with his wife and children and has been an active member of the Philadelphia Section for many years.

H. Richard Orth, formerly Vice-President of Simpson and Curtin, announces the establishment of the firm Orth-Rodgers and Associates with Robert M. Rodgers, P.E. also formerly affiliated with Simpson and Curtin. Specializing in Traffic Impact and Access Studies; Transportation Systems Planning; and Parking Feasibility Analyses. They are located at 275 S. 19th Street, Philadelphia, Pa. 19103. Phone: (215) 735-1932,

"PUMP" IS NOW UNDERWAY

The Philadelphia Urban Manpower Program (PUMP) got underway in January with the placement of two student trainees from Martin Luther King High School. The program is funded by a \$10,000 grant from the INA Foundation and is supplemented by financial and manpower support from the Philadelphia Section, ASCE. PUMP's purpose is the recruitment and placement of minority high school students in the field of engineering and technology.

The INA grant supports teacher salaries for supplementary instruction in mathematics and drafting. ASCE finds the jobs and helps each student develop work habits.

Two students from "King" are now working from 2:30 p.m. to 5:30 p.m. each day under the program. Mark Scott a Junior, is with Louis T. Klauder and Associates, learning standard drafting techniques, while Ervin Mackey, a Senior, is with Simpson and Curtin, learning graphics, layout of maps, etc. Both have been valuable assets to their respective firms.

Walter Clark, President Elect of the Philadelphia Section, and Ira Pierce are working on arrangements with the High School, while Lou Petulla is developing the job opportunities. A goal of 30 students to be placed in September, 1977 has been set. Hyman Carroll has agreed to help with curriculum development.

The PUMP Board of Directors is comprised of Mr. Louis DiVicaris, Principal of Martin Luther King; Dr. Marian Holmes, Philadelphia School District; Mr. Alan Cohen and Mr. Ted Davis, of the Philadelphia Section; Mr. Arthur Howe of the INA Foundation; along with Carroll, Clark, Petulla and Pierce.

PUMP currently has eight (8) commitments toward its goal. If any member would like additional information, please contact Walter Clark (MU 6-3829), Louis Petulla (LO 3-2570) or Ira Pierce (LO 7-3000).

We need more job commitments. PLEASE HELP!

SECTION MEMBERS!

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APRIL JOINT MEETING

(continued from page 4)

in Marine Engineering. He is a Registered Professional Engineer, and a member, in addition to S.A.M.E., of ASCE, Tau Beta Pi (The National Engineering Honor Society), and Chi Epsilon (The National Civil Engineering Honor Society). He spoke on the timely and important subject: "A Cure for the Delaware Oil Spill Problem." Oil spills are one of the major environmental headaches in the Philadelphia District for the Corps of Engineers, occurring daily in varying degrees of severity. Among the prime requirements to alleviate the spills and their environmentally detrimental effects. Captain Wiman explained, are: deeper channels and continuous efforts to counter silt accumulations in the river; vigilant inspection of tanker hulls to detect potential and actual leaks due to structural weakness, rusting or failure; and alertness in enforcement procedures of compliance with the laws and regulations by tanker-transporting companies, and the navigational skills and competence of crews and staffs.

The Phila. Section extends high praise to S.A.M.E. Secretary-Treasurer Edward A. Kucerik, for his expeditious and thorough handling of all the complex arrangements, ticket reservations, etc. for this excellent meeting.

SUMMER MINORITY STUDENT PROGRAMS

Editor's Note: The following article was submitted by Section Past President Lawrence M. Moy, who has for an extended term served on the National ASCE Committee on Minority Programs. In a special ceremony at the March, 1977 Phila. Section meeting, Larry Moy was awarded a Certificate of Merit from National Headquarters for his exceptional service on this Committee.

In a forthcoming issue of THE NEWS, a Section Profile on Larry, prepared by Associate Editor Joseph R. Syrnick, will be published.

Last summer the Philadelphia Section sponsored two high school students at the ASCE-Notre Dame Summer Institute.

This was a three week program which provided exposure for the field of civil engineering to fifty (50) minority youngsters across the country. As a direct result of this, Ms. Adriane Keith, a senior at Franklin Learning Center has applied to several civil engineering schools in New England.

This year the Philadelphia Section is

sponsoring two high school students in a similar local summer engineering program being held at Villanova University in July. This two week program is being conducted by PRIME (Philadelphia Regional Introduction for Minorities to Engineering) a consortium of the five local engineering colleges. Complimentary programs are being conducted at Widener-Temple, Pennsylvania, and Drexel for post eighth ninth and tenth graders.

The Philadelphia Section's Board of Directors is also encouraging the participation by its members and local engineering firms in an important followup two week program to the formal two week course work. This second phase seeks to bring a glimpse of the practicing professional engineers to the students and the students to industry, by way of field trips, laboratory testing or office visitations. Those members interested in more information or participating in the program may contact either Larry Moy at MU 6-5538 or Villanova Dean of Engineering Robert Lynch at 527-2100.

READING BRANCH MEETING

The April meeting of Reading Branch was held on Thursday, April 21, 1977, at Green Valley Country Club. Samuel S. Baxter, P.E. spoke on "Does Anybody Care?"

Mr. Baxter's talk centered on the different environmental groups who represent a minority of the people, but who voice a loud enough cry to halt engineering projects (power, major water projects, etc.) vital to the majority of the people.

VILLANOVA BANQUET ANNOUNCED

Villanova University will hold its First Annual Engineering Alumni Banquet on Friday, May 20, 1977. The banquet will be the occasion to present the Morehouse and Gallen awards to two of the University's outstanding engineering alumni.

Villanova University Campus

Dougherty Hall
Cocktails 6:30 Dinner 7:30
\$25.00 per couple

For ticket reservations, send check, payable to "V. U. Engineering Alumni Banquet", to **Dean Robert D. Lynch**, College of Engineering, Villanova University, 19085. For further information, call Dr. Lynch's office: (215) 527-2100, Ext. 418,

The separate awards are named in memory of the University's two distinguished Deans of the College of Engineering: Dr. J. Stanley Morehouse and Dr. John J. Gallen.

ENGINEERS' CLUB HONORED



Mayor Frank L. Rizzo gets an essist in cutting cake to mark 100th anniversary of the Engineers' Club from {left to right} Lewis A. Caccese, President, Phila. Chapter, P.S.P.E., {a Past Director of the Phila. Section, ASCE}; John J. Lotz, 1977 Engineer of the Year; C. R. Pennoni, General Chairman of Engineers' Week (1st Vice President of the Phila. Section); and Robert H. Goucher, President of the Engineers' Club. The ceremony was held in conjunction with 1977 Engineers' Week in Delaware Valley which opened Feb. 18. Mr. Lotz is being honored as Engineer of the Year.

1977 ENGINEERS' WEEK

prepared by Section Vice President Chuck Pennoni, General Chairman

Each year during the week of Washington's Birthday, the engineering and technical societies of the Delaware Valley cooperate with the National Society of Professional Engineers in the celebration of Engineers' Week.

The activities of Engineers' Week are intended to focus on the importance of engineering and to draw attention to the broad technical and social contributions made by the profession to the quality of life in society today.

The 1977 Engineers' Week activities were kicked off on Friday, February 18, 1977, at the Engineers' Club, with the cutting of a cake by Mayor Rizzo. The event also observed the 100th anniversary of the Engineers' Club — Center of Activities for 20,000 to 25,000 engineers in Delaware Valley.

Following the ceremony, the Proclamation Luncheon was held at the Ben Franklin Hotel. Section member Carmen F. Guarino presented the Mayor's Engineers' Week Proclamation to General Chairman Chuck Penuoni. Three hundred engineers heard Engineer of the Year, Jack Lotz (Section member), deliver an inspiring address about engi-

neers in the political arena and legislation relative to engineers.

During Engineers' Week, many Phila. Section members participated in the various programs. Three separate television shows aired on different dates discussed engineering with Section members Dr. William Hagerty, Vucan Vuchic, Jack Lotz, and Chuck Pennoni.

Section member, Dr. Richard E. Woodring, Dean of Engineering, Drexel University, chaired the SET (Science-Engineering-Technology) program at Drexel which drew a capacity crowd at the Activities Center. The Science Teachers' Workshop held at Villanova, was presided over by Section member, Dr. Robert D. Lynch, Dean of the College of Engineering, Villanova University, and chaired by Section member, Dave Schorr, This event drew an overflow crowd of 350 science teachers,

In addition, seven special events were held at various universities in Delaware Valley. Chuck Pennoni, presented a citation to Mr. Lotz, at the Delaware Valley Council Luncheon at the Barclay Hotel.

The week's activities were capped with a Banquet at the University of Pennsylvania Museum. Lew Caccese, Jack Lotz, and Chuck Pennoni each played a part in the ceremonies which were

attended by a capacity crowd of 300 engineers and guests.

Engineers Week 1977 was a great success thanks to the efforts of many individuals. As noted herein, Phila. Section, ASCE members played prominent roles in achieving this success.

Civil Engineers play a major role in the development and protection of our environment and engineering is the key to maintaining our current standard of living and improving our environment in the future.

The following letter was received recently by Section Secretary Tantala.

1977 National Engineers' Week Dear Mr. Tantala:

On behalf of the Engineers' Week Committee and Mr. C. R. Pennoni, General Chairman, we acknowledge with sincere thanks the generous support which your society has extended to the 1977 Engineers' Week in the Delaware Valley.

Your financial assistance helped insure the success of this year's program. We trust that you and the members of your Society were able to participate in some of the Engineers' Week activities held throughout the Delaware Valley from 18-26 February.

Thank you again for your support, and best wishes to you and your Society for a happy and successful year.

Sincerely yours, Barry D. Leatherman Chairman, Intersociety Relations

GEOTECHNICAL PROCEEDINGS

Call for Papers

The theme for the 1977-78 program of the Geotechnical Group — Philadelphia Section, will be "Geotechnical Engineering and Waste Materials". Within this very timely area of concern both nationally and locally, it is intended that a broad range of subjects of general interest to the engineer be presented including

- * flyash utilization
- * refuse and sanitary landfill
- * mine wastes

1, 1977 to:

- * dredged materials
- * leaching effects
- * stabilization and monitoring techniques, and

* laboratory and field testing. Individuals or groups who would like to participate in this program as speakers and contributors to the proceedings are urged to submit an abstract by July

Dr. Jack Rosenfarb, Department of Civil Engineering, Drexel University, Philadelphia, Pa. 19104 — 895-2355

BUCKNELL HOSTS STUDENT CHAPTER CONFERENCE

The 39th Annual Pennsylvania-Delaware ASCE Student Chapter Conference was held at the campus of Bucknell University, Lewisburg, Pa. on Friday, April 15, 1977. More than 100 students, faculty Local Sections and National ASCE officials heard presentations of nine papers by Civil Engineering students of participating colleges of District 4. They represented Bucknell (two papers), Delaware, Drexel (two papers), Lehigh, U. of Pa. (two papers), and Villanova. Other District 4 colleges eligible for Conference participation, but who presented no papers, are: Lafayette, Penn State, Princeton Swarthmore, Temple College of Engineering Technology and Widener.

The Student Chapter Conference is designed to provide a forum for students to gain invaluable experience in presenting orally, before an audience of their peers and teachers, technical papers on subjects which they have researched, conducted laboratory experimentation and authored during the school year. The subjects varied widely—from "River Ice in the Susquehanna River" to "... How to Teach the Public the Metric System". As usual, the papers and oral presentations were exceptional, and very difficult for the judges to grade for the customary prize awards.

Fifteen-minute presentation times were alloted to each of the nine papers, including a five-minute question and answer period. This latter feature trains the students to think and analyze articulately and spontaneously on their feet. The papers were divided into two categories: Group A — involves actual laboratory testing as well as investigative research on a project or subject; Group B — involves literary research, but no associated laboratory testing. Prize winners were:

Group A

First Prize (\$30.00) — "Laboratory Study of Soil Erosion Control Using Polyvinyl Alcohol (PVA)," by John Franceski, Khalid R. Khan, Frank A. Leone, Drexel University. Mr. Franceski made the presentation.

Second Prize (\$20.00) — "Rice Husks: A Low-Cost Construction Material," by Charles C. Marino, Lehigh Univ.

Third Prize (\$10.00) — "Structural Analysis of the One-Piece House," by Ron Serrano, University of Pennsylvania.

Group B

First Prize (\$30.00) — "Earthquake Induced Liquefaction," by Nicholas C. Schreier, Drexel University. Second Prize (\$20.00) — "Philadelphia Water Department Wastewater Treatment Pilot Plant," by Robert J. Etris, University of Pennsylvania,

Third Prize (Tie) (\$10.00) — "Comprehensive Development Plan, Walter S. Carpenter, Jr. State Park," by Laurence J. Wadman, University of Delaware; and "Measuring Evapotranspiration, A. Possible Method and Model," by W. Corey West and Lee Roy Padgett, Bucknell University. Mr. West made the presentation. (Duplicate prizes were awarded).

Miss Sandra Boehmer, President of Bucknell's Student Chapter, (a seasoned moderator) presided, and she was ably assisted by Miss Susan Kelley, Paper Contest Chairperson. Welcoming remarks were presented by Dr. Glenn H. Keitel, Dean of the College of Engineering. After luncheon, a fascinating talk on unusual engineering structures and theoretical concepts was given by Lev Zetlin, Consulting Engineer.

Praise is extended for the success of the Conference to the charming Misses Boehmer and Kelley, and to Dr. Lawrence Yonkin, Faculty Advisor to the Bucknell Student Chapter.

Phila. Section Publications Chairman Sidney Robin once again served as Head Judge, a rewarding assignment he has enjoyed at these Conferences for many years. He was assisted by two other judges: Thomas H. May, an official of PennDOT, and Roger Hepner, of Mid-Penn Engineering Co., Lewisburg, Pa.

TRANSPORTATION PROCEEDINGS AVAILABLE

"Urban Transportation Efficiency," the proceedings of the two-day specialty conference sponsored by the Urban Transportation Division of ASCE, is now available from Society headquarters.

The 400-page, soft bound volume contains more than 25 papers and panel sessions. The purpose of the conference was to identify concepts relating to urban transportation efficiency and to examine practical approaches to achieve increased productivity at the least possible cost. The volume presents papers on low-cost innovations that have been or are being implemented.

Published with the support of the Urban Mass Transportation Administration of the U. S. Department of Transportation, the net price of this book is \$5.00. To order, write the American Society of Civil Engineers, Publications Department, 345 East 47th Street, New York, N. Y. 10017.

ZIP CODES and ADDRESS CHANGES

ASCE National has asked Section members to check the zip codes contained on ASCE mailings. Zip codes are the basis for automatically assigning members to the proper Section and Branch and as such are important if members are to receive the appropriate mailings, notices, etc.

Please check the zip code on your mailing label and notify Joe Symick (MU 6-5539) if it is incorrect or missing. We'll let National know.

Another matter with which you can help is to notify National Headquarters directly of any change of address at least six (6) weeks prior to the effective date of change. This will allow sufficient time to make the necessary adjustments to the computerized system. This is particularly important to Philadelphia Section members in that the Section now purchases mailing labels from National. Bad addresses becomes expensive in remailing and can lead to non-receipt of important information. Please help National serve you.

THEY'RE JOINING LIKE CRAZY

The following is a listing of new and transferred-in members which we have received since our previous list which was presented last month.

New Members

Alan Buchan
Paul Carr
Robert Corts
Eveann D'Onefrio
Kenneth Johnston
Stefan Manea
Kamal Manoly
Ibrahim Onaral
Daynor Owens

Transferred-in Members

John Dizdul Kenneth Floom Mark Zipf

We believe that this growth is indicative of the good reputation enjoyed by the Philadelphia Section and is fitting tribute to Section President Heiser and Program Chairman Alan Hess for the excellent main Section meetings which were scheduled this year.

We encourage the above named people, all of whom are new to the Philadelphia Section, to become actively involved in Section activities. If you do not know anyone in the Section come to one of our meetings, seek out a Board Member, and introduce yourself as a new member. We'll take it from there.