the news

PHILADELPHIA SECTION

AMERICAN SOCIETY OF CIVIL ENGINEERS

Vol. 50 - No. 7 | Our 65th Year | April - May, 1978

APRIL JOINT MEETING

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

TUESDAY, APRIL 11, 1978

Engineers' Club, 1317 Spruce Street, Philadelphia

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

"Happy Hour" — compliments of Keuffel & Esser Co. (K & E), Fort Washington, Pa. based Engineering Merchandise Corporation. K & E will display their Vectron with Automatic Ranger — a complete programmable instrument; and the American-made Second Theodolite.

SUBJECT:

THE ROLE OF THE ENGINEER IN RESOLVING CONSTRUCTION CLAIMS

SPEAKER:

IRV RICHTER, Vice President, Hill International, Inc., Willingboro, N. J.

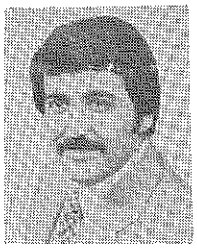
PROGRAM HOSTS:

Capt. W. W. deGroot, U.S.N., President, Phila. Post, S.A.M.E.

Fredric L. Plotnick, Chairman, Phila. Section ASCE, Construction Division

HONORED GUEST:

Ronald J. Drnevich, ASCE National Director, District 4



The ability of the Engineer to resolve construction claims depends upon his understanding of what constitutes a change in contract, knowledge of the rights of the parties to recover and the method by which the damages are calculated and proved. Mr. Richter, an expert in the field of construction claims, will discuss those areas, with particular emphasis on delays and damages. A question and answer period will be available.

As Vice President of Hill International, a unique, multi-disciplined firm of engineers, architects, accountants, cost and scheduling specialists, construction managers and attorneys providing highly specialized management services designed for the prevention, analysis, preparation and resolution of construction claims, Mr. Richter has been retained by the State of New Jersey as a hearing officer to aid in deciding construction claims that have been filed against the State. Additionally, Mr. Richter is a member of the faculty of the Center for Professional Advancement where he teaches a course entitled "Resolving Contract Disputes and Avoiding Construction Claims."

Mr. Richter is a graduate of Wesleyan University, Middletown, Connecticut and attends Rutgers University of Law in Camden, New Jersey. He is a member of the Construction Specifications Institute, the American Bar Association, the Litigation Section and Public Contract Law Section of the ABA, the National Panel of Arbitrators of the American Arbitration Association.

Mail Reservation Cards Immediately — Win a FREE DINNER!

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

TECHNICAL GROUP ACTIVITIES

Geotechnical

Date: **Tuesday, April 18, 1978**
7:00 P.M. — Engineers' Club

Subject: **Design and Construction of Uranium Mine Tailings Retention Facilities**

Speaker: **Joseph Kane,** U. S. Nuclear Regulatory Commission

Program Host: **Dr. Jack Rosenfarb,** Chairman, Geotechnical Group
Refreshments are served.

Hydraulics and Sanitary

March Meeting Examines Sewer Overflows

"Preliminary Engineering Study for the Abatement of Pollution from Combined Sewer Overflow in the Milwaukee Metropolitan Region" was the impressive title of the speech by Tom Meinholz, guest speaker for the March 15, 1978 meeting, which was hosted by Hal Gilman, Chairman.

The Milwaukee drainage region comprises 15,000 acres and three rivers, the Milwaukee, the Menomenee, and the Kinnickinnick. At their confluence, these rivers flow into Lake Michigan. The Study, sponsored by EPA, addressed the problem of the severe depletion of dissolved oxygen during storms, and the resulting pollution of Lake Michigan. Mr. Meinholz stated that heavy storm flow stirred up large organic sediment.

(continued on page 4)

WE'RE LATE!!!

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.

. . . SPECIAL MAY EVENT . . .

Philadelphia Section, American Society of Civil Engineers

DEDICATION OF

WALNUT LANE MEMORIAL BRIDGE

OVER LINCOLN DRIVE

The First Prestressed Concrete Bridge Constructed in the United States,

as an

OUTSTANDING CIVIL ENGINEERING ACHIEVEMENT

Friday, May 5, 1978

CEREMONIES AT THE BRIDGE SITE — 11:00 A.M.

Wissahickon Park on Lincoln Drive, North of Harvey Street

LUNCHEON AT A NEARBY RESTAURANT

12:30 p.m. (approx.)

Distinguished guests will include officials of:

- National and Philadelphia Section ASCE,
- Other Engineering and Historical Societies, business and civic groups,
- Philadelphia Public Works Departments — past and present, and
- Pennsylvania Dept. of Transportation (PennDOT).
- Designers and consultants on the Bridge Project.

A bronze plaque will be installed on the Bridge pier adjacent to Lincoln Drive

For luncheon reservations and information, please call **Ms. Jeanette Kohler,** Secretary to **Ken Zitomer,** Phila. Water Dept., at (215) **686-3898.**

It's Spring — Dance Time Again

!! The Annual Spring Social !!

SATURDAY, MAY 6, 1978

BALA GOLF CLUB

50th Street and Woodbine Avenue, Philadelphia

LISTENING AND DANCING PLEASURE

to the Melodic Strains of RONNIE DRAKE'S Orchestra

COCKTAILS — 6:00 to 7:00 p.m. (Cash Bar)

DINNER — Prime Ribs of Beef — 7:00 P.M.

Fun and Good Fellowship with All Your Friends

Tickets — $15.00 per person

Call or Send for your Tickets Today . . . Guests Welcome

Please make checks payable to WOMEN'S AUXILIARY, ASCE and send for tickets to:

Mrs Wallace A. (Joan) Rutecki

7112 Pennsylvania Ave., Bywood, Upper Darby, Pa. 19082 — (215) 352-3746

Call Mrs. Rutecki for reservations. You may also pay at the door.

ACI MAY MEETING

AMERICAN CONCRETE INSTITUTE

Date: **May 3, 1978**

Location: Engineers' Club

Subject: Panel Discussion

"What Do We Do With Low Cylinder Breaks?"

Time: Cocktails — 6:00 P.M.
Dinner — 6:45 P.M.
Meeting — 7:30 P.M.

Dinner Reservations: **Mike Boyle, 688-8517**

Please Take THE NEWS Home. Your Wife Wants to Read The Women's Auxiliary Items.

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THE PRESIDENT'S MESSAGE

Over three hundred years ago the poet John Donne reminded us that "No man is an island, entire of itself . . . Each is a part of the main". So it is for civil engineers. Acting alone it is likely we may not accomplish much. Acting in concert, who can say where our synergism will take us?

It may be a trite and overworked expression to say our profession stands at a crossroads, but it happens to be true. Our state government is addled with indicted officials and riddled with patronage drones. We don't come close to getting our money's worth out of our taxes, yet elected officials at all levels tell us they need more of our money to solve our problems.

Most of us, when we send a card, "care enough to send the very best". Should our concern for government be any less? The answer is a simple "no".

This is election year in Pennsylvania. Many candidates are offering themselves on both sides for governor. At the same time we shall elect the entire House and half the Senate. *Now* is the time for ASCE members to ask searching and penetrating questions of those who so glibly ask for our mandate. If we do not get the commitment now, we shall be eating Harrisburg waffle next January.

I can testify that one man, in a campaign, can make a difference. But for sure, 1200 members in the Philadelphia Section can deliver a heck of a punch, if they have a mind to. If we don't, we'll get the government we deserve.

It has been my privilege to have been asked to step into the breach and serve as your President this year, an honor I value highly. If I have been able to awaken in some a concern for the civic obligations of civil engineers in our communities, State and Society, I shall indeed consider the time to have been well spent.

Please bring your partner so I can thank you in person at the Bala Social on May 6th. It's much more fun being a part of the main!

Sincerely,

BRIAN J. LEWIS, *President*

1978 CONCRETE CANOE RACE

The Phila. Section will sponsor this years concrete canoe race on **Saturday, April 8, 9:00 A.M. to 12 Noon.** It will be held on the Schuylkill River, with the push-off point at the boathouse on East River Drive, just south of the Strawberry Mansion Bridge.

In the past, the event had been sponsored by the University of Pennsylvania, and this is the first year for direct Section involvement. Teams have been invited from all the engineering colleges in the Delaware Valley, and from as far away as Bucknell, Penn State and Rutgers.

Awards will be made to winners in mens and womens divisions, as well as for best constructed canoe, best decorated canoe, and a special (no holds barred?) faculty race.

We have had good turnouts in the past for this event, and weather permitting, hope for a good one this year. Please try and set aside this time to come out for a day of fun and meet some of your future engineering colleagues.

EDITORIAL:

THE LEWIS PRESIDENCY
A New Dimension

There is nothing quite as sudden as getting your feet wet by jumping from the high dive. But, this is what **Brian Lewis** chose to do when he accepted the position of President of the Philadelphia Section last summer. Historically, our presidents have moved through the positions of first and second vice-president before assuming the responsibilities of the top position. Brian had no such opportunity but plunged ahead with flair to make up for lost time.

As most leaders of organizations recognize, getting things done requires the efforts of many people. Brian harnessed these efforts during the year to improve and rejuvenate existing Section programs. However, the outstanding hallmark of the Lewis Presidency has been the sense of responsibility which Brian has tried to instill in us. "My response to the invitation to serve as Section president . . . was based on my belief that each section of ASCE can and should be a leading force for enhancement of the community it serves," he announced in his President's Message upon assuming office last September. In February's "NEWS", we were urged by Brian to pay our debts to society and exercise our francise to speak out, whether or not we think it will make any difference.

In addition to actively encouraging the Section's legislative activities, Brian has given us a new committee structure with which to meet his challenge. A new Community Affairs Committee has been established, as a result of Brian's belief that ASCE is a "people serving" organization. This committee will address and speak out on the region's community problems in the coming months and years.

Exemplary job, Brian Lewis! Especially on such short notice! The Philadelphia Section and its Board sincerely hopes it can look forward to a continued close association with you in the years ahead. We thank you for all you have done and we wish you luck and good fortune in all your endeavors.

To **Chuck Pennoni** we extend heartiest congratulations as our new President. The reins of the Section will be turned over to him with the promise of as much support as possible during his busy year as leader of the region's civil engineering profession.

WOMEN'S AUXILIARY

April Meeting

The next monthly Luncheon-Meeting of the Auxiliary will take place on **Wednesday, April 19, 1978, 12:00 noon** — at the **Canuso Two Street Tavern,** S.E. Cor. 2nd and South Sts., Head House Square, Center City, Phila. Twice previously, this delightful restaurant was scheduled as the meeting place and adverse weather conditions forced cancellation. All Auxiliary members are urged to attend and to bring guests.

May Luncheon at Whitemarsh

The final Auxiliary function of the current season is the popular meeting at the **Whitemarsh Country Club,** Lafayette Hill, Pa., on **Tuesday, May 16, 1978, 12:00 noon.** New officers for 1978-1979 will be installed. **There will be little other business** — just lots of fun and conviviality. Guests are welcome to this affair, also.

For reservations to both the April and May Luncheon-Meetings call Mary Ellen (Mrs. Warren R.) Van De Vort — (215) IV 3-0714.

The most important social event of the season, of course, is the **Annual Spring Social** at Bala Golf Club on **Saturday, May 6, 1978.**

See Page 2 for details.

TECHNICAL GROUP ACTIVITIES

(continued from page 1)

During the course of the Study, the state of Illinois brought a suit against the City of Milwaukee to cease all combined sewer overflows into Lake Michigan, or to reduce the solids and BOD content to severely low levels at exhorbitant costs. The case is currently in the courts, and extended litigation is anticipated. Mr. Meinholz expressed the concern in his conclusions of how such initially engineering problems evolve into large scale legal problems.

April Meeting

Date: **Wednesday, April 19, 1978**
Luncheon Meeting — Engineers' Club
12:00 Noon
Subject: **Water Conservation**
Speaker: **William E. Sharpe**
Program Host: **Ed Gilardi,** Vice Chairman, H & S Group

The state of the art in water saving device technology will be reviewed including case histories. The impact of water saving devices on water and energy consumption, waste collection and treatment, wasteflow reduction and on-lot disposal is outlined.

For details and reservations contact Patrick Cairo, Phila. Water Dept., 1270 Municipal Services Bldg., Phila. 19107; (215) 686-3883.

May Meeting — Field Trip

Date: **Wednesday, May 24, 1978**
Dinner and Field Trip to Annapolis, Md.
Subject: **The Chesapeake Bay Hydraulic Model**
Hosts and Speakers: **Officials of U. S. Army Corps of Engineers.**

For inquiries, reservations and information, please call **Patrick R. Cairo,** Sec.-Treas. of H & S Group, c/o Phila. Water Dept., Rm. 1270, Municipal Services Bldg., Phila. 19107 - Phone. (215) 686-3883.

Structural

Date: **Friday, April 21, 1978**
12:00 Noon — Engineers' Club
Subject: **"Structural Repairs to the Chesapeake City Bridge Under Traffic"**
Speaker: **Vincent L. Calvarese,** Chief, Civil and Structural Section — U.S. Army Corps of Engineers
Program Host: **Dr. George N. Bathish,** Chairman, Structural Group

Mr. Calvarese will describe the unusual designs required for structural repairs, while maintaining one lane of limited traffic on a high level, 2 lane bridge.

May Luncheon Meeting

Date: **Friday, May 19, 1978**
12:00 Noon — Engineers' Club
Speaker: **Dr. Robert Lynch,** Dean, College of Engineering, Villanova University
Topic: **"Investigation of Structural Effects of Settlement on the Federal Courthouse, 6th & Market Sts., Phila."**
Program Host: **Dr. George Bathish,** Chairman, Structural Group

MARCH MEETING

March 14, 1978 **Engineers' Club**

THE NEWS *is indebted to David M. Barr, III, Vice Chairman of the Structural Group for his fine resume of Dr. Scanlan's talk in the following article.*

Win-Induced Vibration Problems of Suspension Bridges and Other Structures was the interesting subject of the Section's March meeting. Principal speaker was **Dr. Robert H. Scanlan,** Professor of Civil Engineering, Princeton University.

Widener Night

The meeting honored the ASCE Student Chapter and Civil Engineering Department of Widener College. Capable Program Host **Dr. George N. Bathish,** Chairman of the Section's Structural Group, which sponsored and arranged the meeting, wore a "second hat", since he is Professor of Civil Engineering at the school. He introduced members of the "Widener College Family": faculty members, Student Chapter Officers and members and Contact Liaisons. An impressive student representation was at the meeting.

Dr. Bathish presented Dean of Engineering **Dr. Nathaniel Kornfield,** who reviewed the two — State campus undergraduate and graduate programs. Of a total enrollment of about 6,000 students, 500 - 600 (average) are in engineering. Dr. Kornfield described the three-year "corps" curriculum in general engineering, wherein specialization in a branch occurs in the Senior year. At the Master Degree level, civil engineers are predominantly structures-oriented, he said.

Dr. Scanlan's Presentation

Dr. Scanlan has devoted much time to the study of wind induced vibrations in suspension bridges and other structures. Using slides throughout the presentation, he first illustrated the relation between the shape of the vortices and wind speed. As the wind speed increases, the vortices forming on the leeward side of the structure cause the structure to vibrate. This wind characteristic, known as vortex shedding, increases in severity at higher wind speeds. The phenomenon causes vibrations and occasional failures in bridges, stacks, towers, electric cables and even buildings. There are two ways to reduce the vibrations: shred the vortices before they cause vibrations, or allow the vibrations to occur and then brace the structure or dampen the vibrations. Dr. Scanlan then described various structures and the several methods of coping with wind induced vibrations.

In smoke stack vibration, a very common vortex shredder is a large perforated collar which fits around the top of the stack. Another vortex shredder is a set of ridges encircling the stack in a helical fashion.

Vibrations In Cables

High tension electric cables are subject to wind induced vibrations especially when a second cable is positioned in the vortex of another. After trying various combinations and types of cable spacers, the best answer seems to be a large number of cheap spacers. For single cables, vibration dampers attached to the cable near the tower are a good solution.

Suspension Bridge Problems

Dr. Scanlan then discussed some of the world's famous bridges and steps taken to relieve the wind induced vibrations. The Tacoma Narrows bridge, Galloping Gertie, had a shallow, squared

(continued on page 7)

EMPLOYMENT CONDITIONS COMMITTEE FOLLOW-UP REPORT

Editor's Note: The following is an abstract of a comprehensive report prepared by the Philadelphia Section's 1977 Committee on Salary and Employment Conditions, successor to the original Committee established in 1972 under the Chairmanship of Joseph P. Welsh, to analyze and evaluate national and local employment practices and conditions. The current Committee is chaired by Ernest G. Brizell, an official of the Delaware Valley Regional Planning Commission (DVRPC).

The Section Membership is referred to the original Report published in THE NEWS, May, 1972 issue, for a more detailed comparison.

As a result of the salary and employment survey of 1972, a follow-up survey was taken in the spring of 1976. The questionnaire was similar to that of 1972 in order to allow comparisons.

Approximately 1200 survey forms were sent out with 144 responses. A summary of the results follows in both table and written form.

A — PERSONAL DATA

	Survey Dates 1976 Number	1976 %	1972 %	Change from 1972 %
Average Age	39.0		40.8 yrs.	
Average years since BS	15.5		16.8 yrs.	
Education				
BS	73	50.7	60.0	— 16
MS	63	45.8	32.8	+ 39.6
Ph.D	5	3.5	3.8	— 7.9
ASCE Member Status				
Associate	62	42.8	37.9	+ 12.9
Member	67	46.2	47.4	— 2.5
Fellow	14	9.7	13.7	— 29.2
Life	2	1.3	1.0	+ 30.0
Registration				
None	10	6.7	10.0	— 33.0
E.I.T.	27	18.0	11.3	+ 59.3
P.E.	108	72.0	76.6	— 6.0
L.S.	5	3.3	—	—

B — EMPLOYMENT DATA

Employed by:				
Government	**29**	**20.4**	**32.1**	**— 36.4**
State	3	2.1	14.1	— 85.1
Federal	12	8.5	9.3	— 8.6
Local	14	9.8	8.7	+ 12.6
Private Industry	**94**	**66.2**	**60.4**	**+ 9.6**
Engineering Firm	70	49.2	39.4	+ 24.9
Construction	12	8.5	7.5	+ 13.3
Industry	12	8.5	13.5	— 37.0
Self-employed	**7**	**4.9**	**3.6**	**+ 36.1**
Others	**12**	**8.5**	**3.9**	**+117.9**
Average Annual Salary	$24,400		$18,100	+ 35.0

Figure 1 illustrates the wide range of reported annual salaries versus age. An approximate median salary was plotted between the minimum and maximum salaries at a particular age. At the average age of this survey (39.0 year) the median salary would be $28,500.

C — FRINGE BENEFITS

This section of the survey asked for responses relative to time off, health and disaster benefits and retirement.

TIME OFF ALLOWANCES

The percentage of the total respondents to the question of vacation was as follows:

Weeks Off Per Year	1976	1972	Change
1	2	1	+100
2	43	48	— 11.6
3	28	28	0
4+	27	23	+ 17.4

Though not completely accurate because of possibly more than 4 weeks vacation under the 4+ category, the average weeks of vacation was approximately 2.9.

The average number of holidays was 9.3, an increase of 2.2 percent over 1972 figure of 9.1.

As in the 1972 survey, it was impossible to pinpoint the number of annual sick leave days or maximum accrual. Both of these categories ranged from none to unlimited.

123 persons responded to the question of severance pay. 44% indicated they do receive such a benefit. This figure compares to 31.5 % who received serevance pay in 1972.

HEALTH AND DISASTER BENEFITS

There were four benefits surveyed under this category; life insurance, accident insurance, disaster income insurance and hospital and health coverage.

93% of the 133 respondents were covered by life insurance averaging $32,300, a 68% increase over the $19,200 coverage in 1972.

57% of the engineers surveyed indicated they were covered by accident insurance while 41% received disability income benefits ranging from 30% to 100% of their annual salary.

Hospital and health coverage for the family was provided to 62.5% of those surveyed, while individual coverage was provided by the employer to 30.6%. Only 6.9% did not receive coverage.

OTHER BENEFITS

83.6% of those surveyed indicated they participated in a pension program.

Analysis of the continuing education question showed 28.5% received full benefits, 25.7% received partial payment and 45.8% did not receive any education benefits. These results are very similar to those in 1972.

D — OPINIONS

1. Should ASCE work toward improvement of salaries and working conditions of their members?
   YES 129 — 92.1% NO 11 — 7.9%
2. How would you rate the following organizations to further employment conditions and salaries?
   (1 — Top, 4 — Lowest)

	1	2	3	4
Effectiveness				
Labor Union	72	4	5	32
Employee Ass'n	12	62	24	16
NSPE	15	20	45	33
ASCE	20	19	36	38
Most Desirable				
ASCE	71	31	7	10
NSPE	37	53	16	9
Employee Ass'n	16	13	72	12
Labor Union	7	7	9	90

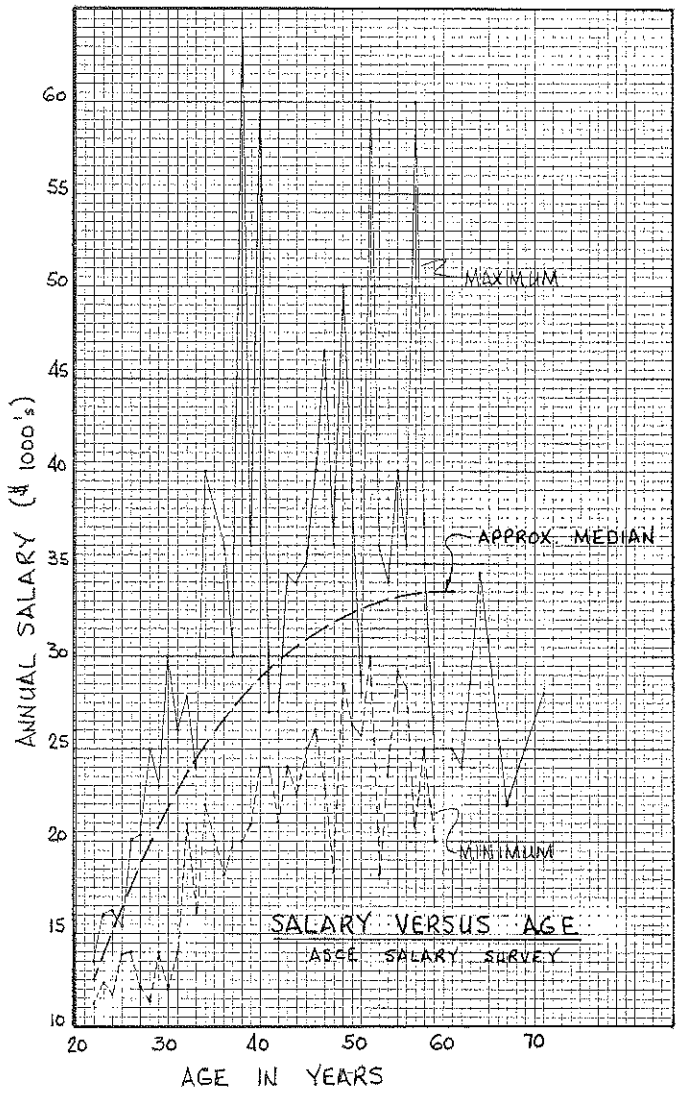


FIGURE 1

3. If ASCE is unsuccessful in achieving these goals, would you consider joining one of the following?

	Yes	No	Undecided
Employee Ass'n	61 — 49%	60 — 48%	3 — 3%
Labor Union	21 — 18%	93 — 81%	1 — 1%

4. Indicate by numbers the least satisfactory phase of your employment. (1 — Least 6 — Most Satisfactory) Phase of Employment:

	1	2	3	4	5	6	Weighted Average
Challenge	8	8	24	20	33	32	4.26
Fringe Benefits	16	24	26	29	16	13	3.35
Future Prospective	34	33	13	16	17	11	2.85
Salary	18	23	24	24	23	12	3.38
Working Conditions	14	15	26	23	22	15	3.60

E — SUMMARY

The 1976 Salary and Employment survey has shown consistent gains in the areas of salary and benefits over the responses of the 1972 survey. Salary increase 35% (7.8% annually) to $24,400 over the four year period. The reported time off has increased along with health, disaster and pension benefits.

Responses to the opinion questions are very similar to these answers in 1972.

F — RECOMMENDATIONS

1. The Board of Directors of the Philadelphia Section of AS CE submits the full report to National ASCE. This letter should highlight the fact that 92.1% of the respondents were in favor of ASCE working toward improvement of salary and working conditions.
2. A salary and employment update be prepared periodically, possibly annually, for the Philadelphia Section of AS CE. It could be accomplished through an insert to the Newsletter to minimize cost.
3. That the Associate Member Forum be designated as the responsible group to accomplish this periodic update.
4. A brief presentation be made to the April 1978 Section meeting with the full report available at that time.

Respectfully submitted,

Employment Conditions Committee

Ernest G. Brizell, *Chairman*
William J. Parente
Norman G. Weintraub

29th ANNUAL HIGHWAY GEOLOGY SYMPOSIUM

May 3, 4 and 5, 1978 Annapolis, Md.

Urban Geology on the Fall Line

Co-Sponsors: Maryland State Highway Administration, Maryland Geological Survey, Baltimore-Washington-Harrisburg Section Association of Engineering Geologists, Geotechnical Group, Maryland Section, ASCE

The 1978 Highway Geology Symposium will emphasie the theme "URBAN GEOLOGY ON THE FALL LINE". Technical sessions will be directed towards the influence of geology on the design and construction of highways and other forms of transportation in an urban environment. Subjects will include subsurface exploration, soft ground and hard rock tunneling, construction over compressible materials, and the general effect of the wide range of geologic conditions encountered along the Fall Line on urban transportation design and construction.

THE NEWS, on behalf of the Officers and Board of Directors, extends to the Membership of the Philadelphia Section, heartiest wishes for a pleasant summer.

Watch for THE NEWS announcement of the October, 1978 meeting.

MARCH MEETING

(continued from page 4)

off deck cross-section which allowed the vortices to spread across the deck surface and promote vibration until failure occured. The Brooklyn Bridge, designed by John Roebling, was stiffened against vibration by the many diagonal stays running from the tower to the deck. Roebling did not write about his reason for this design feature, but researchers assume that he must have felt that aerodynamic instability was possible. These diagonals work quite well but need frequent inspection.

In its original design the Golden Gate bridge had no bottom lateral truss beneath the deck. But in 1951 a severe wind storm produced vibrations with an amplitude of 12'. Because of this event, the bridge was strengthened as mentioned.

Steinman's Deer Isle bridge was designed with a squat I section deck and was prone to torsional instability. However, the designer arranged the cables into trusses using many extra diagonal cables which provided the needed stability.

Progress In Research

Dr. Scanlan spoke of several research efforts involving wind tunnels to analyze the aerodynamic stability of structures. The New York World Trade Center was analyzed at Colorado State University at Fort Collins. At Princeton University various tests and demonstrations have been conducted to duplicate the torsional motion of bridge decks. The Japan Steel Company is conducting wind research on a one-tenth scale model of the deck of the proposed Honshu-Shikoku bridge. The bridge deck is about 100' across and one proposal involves gratings in the deck to relieve the wind pressure differential.

At the end of Prof. Scanlan's talk, following an enlightening question and answer period, Section Vice President Chuck Pennoni, who presided at the meeting in the absence of President Brian Lewis, presented him the Section's Certificate of Appreciation and a copy of the Section's 1976 Bicentennial Celebration book: **The History of Civil Engineering and Construction in the Delaware Valley.**

Here's an interesting development proving the value of the book, which was announced at the meeting: The Smithsonian Institution in Washington, D. C., has requested a copy of "The History of Civil Engineering and Construction in the Delaware Valley." The Phila. Section and the editorial staff are very proud of this. So, if you haven't purchased your copy yet, do so right away. You may get the book from Section Treasurer **Theodore Davis,** c/o Rothbaum and Davis, 215 S. Broad St., Phila. 19107 — (215) 735-6498.

LIFE MEMBERSHIPS AWARDED . . .

The Annual Awarding of Life Memberships was a pleasant Special Feature of the March 14, 1978 Section meeting. At a moment's notice and without any preparation, the Section's most eminent Past President: Samuel S. Baxter (he is also a Past President of National ASCE) presented the certificates to those individuals in attendance, as well as brief biographies of the recipients.

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

Wendell A. Johnson
Malcolm C. Mattice
Ralph Porges
Fred F. Van Atta

The following awardees were not in attendance:

John F. Curtin
John Dallas, Jr.
Harry R. Halloran
Sidney Pollock

Their certificates will be mailed to these individuals.

The Philadelphia Section congratulates all the new Life Members for their faithful service to ASCE, the profession and the community.

* ** *

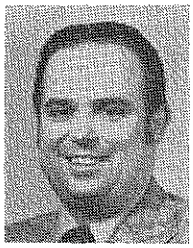
. . . AND PAST PRESIDENTS GET PINS

Another highlight of the March 14, 1978 Section meeting was a tribute to all living Past Presidents of the Philadelphia Section, ASCE. Through extensive research by Vice President Joseph P. Welsh, twenty-two Past Presidents were located and invited to the meeting to receive the awards — special ruby-studded official National ASCE lapel pins.

Attending to receive their pins were the following (their Presidential term is in parentheses):

Samuel S. Baxter	(1951 - 52)
Joseph A. Schulcz	(1952 - 53)
William Padlasky	(1961 - 62)
Sidney Robin	(1962 - 63)
Joseph R. Farrell, Jr.	(1964 - 65)
Milton W. Rothbaum	(1967 - 68)
Lawrence M. Moy	(1971 - 72)
Bruno J. Talvacchia	(1972 - 73)
Alfred O. Quinn	(1974 - 75)
Robert M. Koerner	(1975 - 76)

NOTES FROM DIRECTOR DISTRICT 4



Ronald J. Drnevich
Director,
District 4 ASCE
(1977 - 1980)

Chief of Transit Facilities Design and Partner in the firm of Gannett Fleming Corddry and Carpenter, Inc., Mr. Drnevich holds a BS degree in Civil Engineering from the University of Notre Dame and did graduate work at Carnegie Mellon University. At Gannett, he has been responsible for the final design of mass transit projects and numerous bridge structures and is Director of computer program development for the firm's Transportation Division.

With ASCE, Ron's activities have included posts within the Central Pa. Section including the Presidency. Currently, he is chairman of District 4 Council and a member of the ad hoc Visiting Committee for ECPD accreditation. Other professional society affiliations include: NSPE and its State Chapter. The Harrisburg Chapter selected him as Young Engineer of the Year in 1973.

At the recent Zone I management conference, it became apparent that many members, especially younger and new members, are unaware of the geographical and officer organization within ASCE. In essence, all of North America is divided into 4 Zones and each of the Zones is further broken into Districts. Zone I consists of all of the Northeastern states extending to and including New Jersey and Pennsylvania. There are four Districts within Zone I and all of Pennsylvania makes up District 4. The membership within District 4 consists of some 3400 Civil Engineers spread between four Sections and one Branch of the Philadelphia Section.

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NOTES FROM DIRECTOR

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The National Board of Direction of the Society consists of one Vice President from each of the four Zones and one or more Directors from each District depending on the size and number of members within the District. Our District has one Director. The Board of Direction also includes the Past-President, President, President-Elect, and a Director for International Contact, for a total of 28. The Board represents some 75,000 current members of the Society assigned to 82 local Sections plus foreign members.

The geographic breakdown is evaluated every ten years by the Committee on Districts and Zones to provide for adjustments and balance in representation on the Board.

In 1959 the District 4 Council was formed. The Council has no jurisdiction over the sections in the District but its members consist of 3 representatives from each Section and two from the Reading Branch. The District Director is normally Chairman of Council and the Section members are usually the President, First Vice President and Secretary.

The purpose of Council is basically to effect better cooperation and communication between sections in the District and to provide an opportunity for the member sections to address legislative affairs, interests and concerns within Pennsylvania as a united group.

Membership can bring concerns to the Council through the Section officers or directly to the Council Chairman (myself).

As an additional note, the entire organization, operation, breakdown of Society Services and all publications available through the Society is published in the Official Register. The Register, (the Society's "bible") contains a wealth of information and is available free to all members for the asking. If your interest is in knowing more, write to National ASCE and ask for one.

McPHILLIPS TESTIFIES AT SENATE HEARING

Philadelphia Section Past President **James W. McPhillips,** Chief Engineer and Surveyor, Phila. Dept. of Streets, and Chairman of ASCE National Transportation Policy Committee, testified on March 6, 1978 at a public hearing, before the Subcommittee on Transportation, Committee on Environment and Public Works, United States Senate. He was joined by Dr. D. Allan Firmage, Professor of Civil Engineering at Brigham Young University, and Chairman of ASCE National Committee on Bridges.

Mr. McPhillips and Dr. Firmage, in attempting to pursue effectively their important Committee assignments, have been exerting efforts vigorously to alert the public's and lawmakers' attention to the critical need for vastly expanded Federal assistance — financially and legislatively — in the bridge replacement and rehabilitation program. The two ASCE representatives read a formal statement and answered extensive questioning by the Committee members.

The statement commended the Committee for its concern for public safety by advocating legislation. It also referred to a position paper adopted by ASCE several years ago, and since updated to recognize the increasing urgency of the issue. The position paper expresses the persistent apprehensiveness of civil engineers bearing responsibility in many aspects of bridge safety.

The statement's text ranges from statistics on structurally deficient bridges (of 235,000 on the Federal aid system alone **which have been inventoried,** 7,000 are structurally impaired and 27,000 obsolete insofar as their capacity to function adequately) — to recommendations on the proposed legislation (Senate Bill S. 2440 which was the subject of the testimony.

A few key points in the statement include the following:

* Estimates of the cost of replacement of dangerous bridges extant.
* Analyses of the required functional repair or rehabilitation of various types of bridge structures and their anticipated life under given conditions of loading and fatigue stress, weather effects, — all of which contribute to deterioration.
* The evolution of engineering design which has been influenced by changing vehicle weights, heavier loads of trucks and trailers, resistance to corrosion, etc., rendering earlier bridges (the 1920's to the immediate post-World War II period) obsolete or "in advanced old age."
* Decreasing substructure resistance to the forces of constant impact of fast-moving vehicles; scour damage, settlement and displacement of piers.
* The urgent need for regular periodic inspection and preventative maintenance of *all* bridges.

Space limitations here preclude the listing of the many additional important issues enunciated in the statement.

The statement concludes with the poignant observation: ". . . in order that this bridge replacement and rehabilitation program may be enabled to move ahead, **existing regulatory** requirements and procedures need to be streamlined. An action program, recognizing the public interest, needs to be implemented. Bill No. S. 2440, which is now before the Committee, or similar legislation, needs to be enacted . . ."

Texts of the full statement and the ASCE position paper referred to may be obtained by inquiry to Mr. McPhillip's office at Room 920, Municipal Services Building, Philadelphia, Pa. 19107 — Phone: (215) 686-5537.

ACI BUILDING CODE SEMINAR

A one-day seminar program covering the new "Building Code Requirement for Reinforced Concrete (ACI 318-77)", will be held on **Tuesday, May 23rd, 1978,** at the Holiday Inn at City Line and Monument Avenue.

Beginning at 9:30 P.M., the program will include lectures on the new provisions of the Code (which should remain in effect for the next six years), and then a problem solving period will constitute the afternoon session, scheduled to finish at 6:00 P.M.

The session has been assigned 0.7 Continuing Education Units (C.E.U.'s) and has the approval of the American Institute of Architects.

The registration fee of $75.00 (slightly more for non-members and for late registration) includes the cost of the sessions, copies of the ACI Code and Commentary and a workbook. Though a mailing of the brochure was made to ASCE members, extra copies may be obtained by calling or writing to Dr. Ralph Koliner at Villanova University, Civil Engineering Dept., Villanova, PA, 19085.

Prominent members of the Phila. Section who serve on the American Concrete Institute Education Committee are: **Dr. Ralph Koliner,** Chairman; **Frederic Roll,** and **Randall C. Cronin.**