

# the news



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PHILADELPHIA SECTION

AMERICAN SOCIETY OF CIVIL ENGINEERS

P. O. Box 58186, Philadelphia, PA 19102-8186

Electronic Message Hotline: (215) 687-7741 (24 hours a day)

Vol. 66-5

## Our 80th Year

April  
March, 1994

### APRIL JOINT DINNER MEETING

Philadelphia Section, American Society of Civil Engineers  
Philadelphia Post, Society of American Military Engineers  
(Invited Participant) Philadelphia Chapter, PSPE

**WEDNESDAY, APRIL 13, 1994**

HARBOR LEAGUE CLUB, Camden, NJ • See Location Map on Page 2  
Cocktails – 5:30 PM    Dinner – 6:30 PM    Meeting – 7:30 PM

**SUBJECT: WORLD TRADE CENTER EMERGENCY PREPAREDNESS — RESPONSE TO BOMBING**

**SPEAKER: EUGENE J. FASULLO**, Director of Engineering and Chief Engineer, The Port Authority of New York and New Jersey

#### SPECIAL FEATURE: Widener University & Swarthmore College Night

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

**Eugene J. Fasullo** received his B.S. Degree in Civil Engineering from Brooklyn Polytechnic Institute in 1957; and his M.S. in Structural Engineering at the University of Illinois. He is a Licensed Professional Engineer in New York and New Jersey. Since beginning his professional career in 1958 with the Port Authority, Mr. Fasullo has progressively worked his way through the ranks of principal engineering positions to his present post, in which he has achieved overall responsibility for structural design, construction management and administration, for all Port Authority facilities, including tunnels, bridges, airports, marine terminals, bus terminals and railroad facilities. He was appointed to his present position with the Port Authority in March, 1992.

Mr. Fasullo is the recipient of numerous major achievement awards; and he is affiliated with several engineering societies, in addition to ASCE.

At the time of the bombing of the World Trade Center twin towers on February 20, 1993, Mr. Fasullo was trapped with several others in a stalled elevator. They freed themselves ingeniously after a harrowing and terrifying ordeal, which Mr. Fasullo will describe.

Cost: \$15.00 per member or guest; \$8.00 ASCE Student member.

**RESERVATIONS ARE REQUIRED.** Please send your check for the number of attendees @ \$15.00 per member or guest; \$8.00 ASCE student members, payable to Phila. Section, ASCE, P.O. Box 58186, Phila., PA 19102-8186; or call the Electronic Message Center, (215) 687-7741 (open 24 hours/day). **Deadline for reservations is Friday, April 8, 1994.**

#### Structural Group

##### April Meeting

Date: Wednesday, April 20, 1994 – 7:00 pm

Location: Hill Seminar Room; LeBow Engineering Building, Drexel University, 31st & Market Sts., Phila., PA

**SPEAKERS: Dan McGee, P.E.**, Regional Director, Construction Codes and Standards, American Iron and Steel Institute and **Roland Hall, P.E.**, Eastern Regional Manager, BOCA Int'l, Inc.

#### SUBJECT: Hurricane Andrew Wind Damage, Proposed 1995 ASCE 7 and the Current BOCA Wind Load Requirements

Mr. McGee and Mr. Hall will give a slide presentation and an overview of the wind damage caused by Hurricane Andrew. They will also review the proposed 1995 ASCE 7, "Minimum Design Loads for Buildings and Other Structures" and the current 1993 BOCA wind load requirements.

### TECHNICAL GROUP ACTIVITIES

#### Geotechnical and Environmental / Water Resources Groups

(Combined Program for 1993-1994)  
*April Meeting*

Date: Tuesday, April 19, 1994, 7:00 PM

Location: Hill Seminar Room, LeBow Engineering Center, Drexel University, 31st & Market Sts., Philadelphia, PA

**SPEAKER: Dr. Marlene Troy**, GES, Inc.

**SUBJECT: Bioremediation of Petroleum Hydrocarbons – Lessons Learned**

Bioremediation is an increasingly popular method to clean up contaminated sites. It has the premise of solving the problem, rather than relocating it as with recovery processes. However, success with bioremediation includes application to appropriate situations and recognition of the limitations of the technique.

Bioremediation is defined as the optimization of a natural process to bring about the desired chemical and/or physical changes in a confined and controlled environment. These desired changes include decomposition of hazardous compounds, improvement in environmental quality, and reduction in human health risk.

Bioremediation can be considered for remediation of soils and groundwaters contaminated with petroleum hydrocarbons, often by a fuel leak from a storage tank, but also by accidental spills from truck or railroad tankers. While the feasibility of biological treatment of petroleum hydrocarbons is well documented, the techniques for successful and timely field implementation are continuing to evolve.

The presentation covers the essential principles, and then focuses on examples where "lessons have been learned," i.e., predictions of behavior and methodology have been modified by experience.

For further information, please contact: **Dr. J.P. Martin**, Chairman, Geotechnical Group, Dept. of Civil & Arch Eng., Drexel University, Phila., PA 19104, (215) 895-2363 or **Mr. Raymond Lees**, Chairman, Environmental/Water Resources Group, Groundwater Technology, Inc., 223 Wilmington-West Chester Pike, Chadds Ford, PA 19317, (215) 558-1730.

***The Social Event of the Year!!  
The Fabulous Annual Dinner Dance  
Sunday, May 15, 1994***

at  
***The Harbor League Club***  
***Hudson Square • Camden, New Jersey***

See Location Map for Directions • Parking on Premises

5:00 pm Cocktails (Cash Bar)

Hot & Cold Hors d'Oeuvres

6:00 pm Dinner

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Confirmations will be mailed after check is received.

*Please indicate entree choice(s).*

**TIMBER TRUSS SYMPOSIUM**

The Delaware Valley Chapter of the Association for Preservation Technology International will sponsor an all-day symposium on wood timber trusses on Saturday, May 21, 1994 at the First Baptist Church, 17th and Sansom Streets, Philadelphia, PA. This symposium will focus on “Structural Timber Framing and Trusses: An Historical Perspective” and will be the first of an annual series on timber framing.

(Continued on Page 6)

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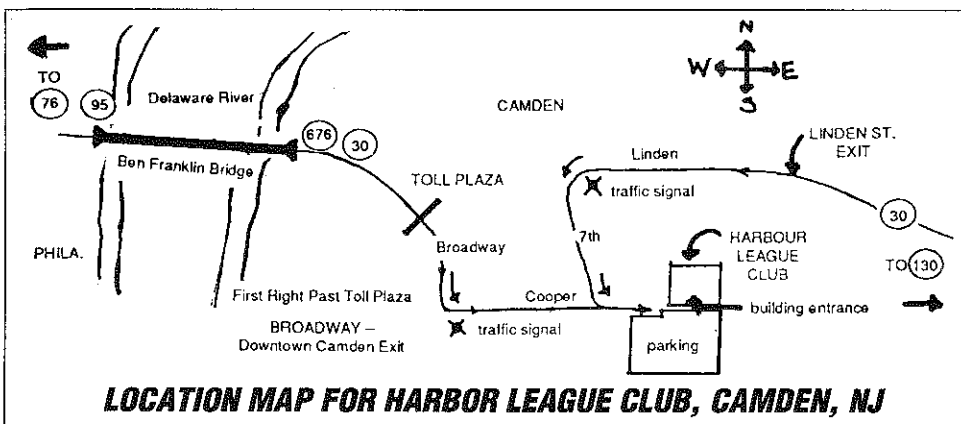
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**IMPORTANT NOTICE!**

The Phila. Section, ASCE, Annual Meeting, to which all membership is invited, will take place on Thursday, May 12, 1994 at 4:30 pm at the SEPTA Offices, 714 Market Street, Philadelphia, PA 19106 in Conference Room 4A. The Section's Board of Directors will also meet at the same place and time.

**COPY DEADLINE FOR  
OCTOBER 1994 ISSUE  
SEPTEMBER 8, 1994**

## THE PRESIDENT'S MESSAGE



We often ask ourselves where the time goes. There is a Latin expression, *tempus fugit* — (it's hard to find a Latin these days to check these things!), that is, time flies. Where is this going, you may ask? Well, it seems like a very short time ago that the gavel was handed to me and they told me that I was the President. Now, I've got to hand that gavel to someone else. I was just getting warmed up!

I'd like to say the presidency was easy, but it had its challenges. With the supportive, good Officers and Board Members we have, the task is at least a little less difficult. As many of you know,

it is nearly a second career, but it is worth it. I now know why politicians use the plural pronoun so much — this is not an "I" position with all the "we" that are involved. My next challenge, which I will accept gladly, is to avoid being put out to pasture as a Past President. I intend to do all I can to remain active in Section business, at least to the extent that time and the Section officers allow.

What did this President do for you? If you believe what will probably be written about me elsewhere in this edition (and remember, you shouldn't believe everything you read!), I probably moved mountains, swam oceans, etc., etc. I will admit to attempting to do what I could do for the Section. Again, the "I" part of this should really be a "we." As many of you know (especially those of you in government), a year is a very short time in which anything can be accomplished. We managed to get the ball rolling on a number of issues that may take a while to achieve full resolution. The results will be worth the wait.

The meeting program seemed to be well received. We tried to vary the content to cover the various aspects of our profession. The weather didn't always cooperate but our diehards got out nevertheless. The untimely loss of the Officers Club as a meeting place was turned into a positive by once again compelling us to find new venues. Our foray into the previously uncharted Northeast Philadelphia area was promising. The Geotextile Seminar looks like something we should continue to provide as long as Bob Koerner and his staff at Drexel are willing. The successful nomination of **Sandra May** as the Delaware Valley Young Engineer of the Year was something I personally view with pride and is a favorable accomplishment that all members of the Section can share.

Now, as I fade into the sunset, I offer the best of luck and continued success to our incoming President, **Bill Thomsen**, and his cabinet. But I must warn Bill that, as a Past President, I now will be able to assume the esteemed title of "Curmudgeon/Pest" at future Board meetings! (Bill, the message here is to keep me busy so I can't become this thorn in your side!)

As always, please feel free to pass along contributions, ideas, suggestions, and the like to help the Section serve you better.

Sincerely, Bob Wright, President, Phila. Section, ASCE

### Editorial

## THE WRIGHT PRESIDENCY — PRECISE! FULFILLING!

Legend has it that one day, when the late great violinist Jascha Heifetz was walking in downtown New York City, a visitor approached him and asked: "Pardon me, sir. Could you tell me how to get to Carnegie Hall?" "Practice, practice, practice," came the hesitant and incisive replay from the Great One.

Such an allegorical parallelism typifies the personality, professional philosophy and *modus operandi* of Philadelphia Section, ASCE President, **Robert M. Wright**, soon to complete his 1993-1994 tenure.

It has been the policy of your humble editor through the years, to critique the merits and accomplishments of Phila. Section Presidents at the end of their incumbencies. It was different this time; but the evidence has been kept sealed in the editor's vault — and only now may the superlatives surface. This is so because Bob Wright's editorial was really conceived when he first assumed office in 1985 as Membership Secretary (1985-1987). He became more progressively intimately involved in all functions of the Section as Secretary (1987-1991); Vice President (1991-1992); and President-Elect (1992-1993). The editorial, of course, reached the full maturation and culmination stages

after he assumed the highest office in 1993.

It can be averred — without dispute — that during his years in the official hierarchy, no Section President would have been able to operate without difficulty were it not for Bob Wright's inevitable presence at almost every turn. Bob has been the catalyst in the process of implementing every major program of the Phila. Section agenda. It was he who created the environments for successful motivation and accomplishment of the Section's and his predecessors' objectives. He was in reality, for year before 1993-1994 "Associate President" to those occupying the high office.

The fields of Bob Wright's endeavors embraced: increasing membership attendance and active participation; meetings programs logistics, as well as technical subjects viability and general interest; Reading Branch coordination; and social functions and spouse and family events, such as highly successful picnic in June, 1993. He demonstrated full confidence in, dependence upon, and praise for all the Officers, Directors, Technical Group and Committee Chairmen, who carried out their assignments with dispatch and thoroughness.

Never has Bob Wright scorned or dismissed suggestions, ideas or criticism from any member or

affiliate of the Phila. Section. Rather, he constantly encouraged the membership and their associates to submit these things for serious review and discussion and full analysis. All of these attributes are prominent in Bob's monthly President's messages in THE NEWS. But the modesty in these messages belies the immense amount of detail work he imbues in creating the dynamic intent of his proposals. This approach would not be surprising to his associates at work, in the Philadelphia Department of Streets, where Bob operates very similarly in his position as Project Engineer of the Major Highways Division.

A light note is appropriate here anent Bob's modesty. At the beginning of his term, your editor asked Bob for a photograph to accompany his first President's Message in THE NEWS. For weeks he dallied and plead his desire for "anonymity." As a result, the first issue (October, 1993) noted in the photo space: "PHOTO TO APPEAR NEXT MONTH" Anonymity, indeed!! Who could miss that 6'-2" frame, with his head towering above most people in his company! He was defeated in this battle with the editor.

So — we have had quite a guy in there this year. Combine his subdued wit and quiet charm, a keen and wry sense of humor, with an impeccable technical and professional ability and capacity to get things done, — mix the ingredients together under glass — and we have produced a great presidency. If one were constrained to sum up Bob Wright's presidency in one phrase — this would be it: "...inexhaustible energy, quietly manifested in an endless flow of tasks completed..." Thank you, President Wright, for a magnificent job! And we shall hold you to your pledge, as enunciated in your final Message this month, that you will not accept "...being put out to pasture as a Past President..." and that you intend to remain active in Section business. We also ignore your caveats and restrictions cited: "...to the extent that time and the Section Officers allow..." Those qualifications are pretty well neutralized in the penultimate paragraph in the same Message.

And now, the Section welcomes and offers Best Wishes for success to **William T. Thomsen**, incoming President of the Phila. Section for 1994-1995), who will be installed and presented the gavel at the Annual Dinner Dance at the Harbor League Club on Sunday, May 15, 1994. Your record of Section activism and ability through the years is no secret. We are all available to help at your call. Ask and we shall respond. Good luck and Godspeed!

## ENJOY YOUR SUMMER!!

On behalf of the Officers and Board of Directors of the Philadelphia Section, ASCE, the staff of THE NEWS extends to all the Members and their families best wishes for healthy and pleasant Spring, Summer and Fall seasons.

We look forward to seeing you all at the first meeting of the Section's 1994-1995 season in October, 1994. Watch for the October, 1994 issue of THE NEWS.

## SANDRA MAY INSTALLED AS DELAWARE VALLEY YOUNG ENGINEER OF THE YEAR

Our own Membership Secretary, **Sandra May**, was the successful candidate for the 1994 Delaware Valley Young Engineer of the Year honors. Sandra was selected from a field of nine entrants for this coveted award.

Sandra was officially recognized as Young



Engineer of the Year at a dinner conducted at the Engineers Club on February 23, 1994. She dazzled the crowd with a moving speech in which she outlined her professional goals, covered her varied accomplishments, and skillfully presented a biographical sketch of what helped her decide to become an engineer, and how she overcame various obstacles and difficulties to achieve her goals.

Sandra is a Special Projects Engineer for PECO Energy in its Montgomery County Gas Operations. She graduated from Drexel University in 1985 with a Bachelor's Degree in Civil Engineering/Construction Management and went on to earn a Master of Science degree from Penn State University in 1991. She is a resident of the Roxborough Section of Philadelphia.

In addition to her service to ASCE, Sandra is heavily involved with numerous programs including Math Options and PRIME. She is the immediate Past President of the Section's Reading Branch and held various offices and duties in the Branch over a six-year period.

The Section sponsored Sandra's nomination for the award and is proud to have her as a member. Congratulations, Sandra!

*EDITOR'S NOTE: See excerpts from Sandra's acceptance speech elsewhere in this issue of THE NEWS.*

### NOTICE

The Family Night of Bowling, originally scheduled for late March, has been postponed until Fall, 1994. Watch THE NEWS for details.

## FEBRUARY JOINT DINNER MEETING

February 16, 1994

Harbor League Club, Camden, NJ

### NJ Transit South Jersey Rail Study

By Frank M. Russo, Staff Writer

February marked the Annual Joint Dinner Meeting of the Philadelphia Section and South Jersey Branch of the New Jersey Section, ASCE at the Harbor League Club in Camden, NJ. This was also an occasion to celebrate Temple University Night and welcome two very dynamic speakers from New Jersey Transit. Everything was in place except for a kind weather forecast. The Winter of 1994 not forthcoming, the dinner was a resounding success.

#### Temple University Night

Temple University was once again represented by a substantial student and faculty turnout. Among these students were the 1993-1994 Officers of the Temple University Chapter of ASCE. Led by President **Mark Rice**; Vice-President **Charles Naples**; Treasurer **Peter Smith**; and Secretary **Carrie Christiansen**, the Temple University Chapter provided us with a fine student showing. Mark Rice indicated in his address to the assembly that the Temple University Student Chapter has actively been pursuing local, regional, and national scholarships and fellowships for the undergraduate and graduate student body. This has contributed significantly to helping finance the education of many of Temple's Civil Engineering students. President Rice also indicated that the Student Chapter is very actively maintaining the Department of Civil Engineering's ever-growing engineering library of journals and trade publications.

#### New Jersey South Jersey Transit System Expansion

The highlight of the evening as usual were the guest speakers presentations by **Jack Kanareck** and **James Schwarzwald**, both of New Jersey Transit. The meeting was the perfect opportunity for New Jersey Transit (NJT) to present its long-range system expansion plans and detail the proposed expansion of the PATCO system.

The first speaker from NJT was **Jack Kanareck** who talked about the system history and discussed long-range expansion objectives. These objectives are lofty but long overdue for the Nation's fourth largest commuter rail operator.

NJT plans to install continuous welded rail across the entire system, upgrade the signal system, and construct a new maintenance yard in Hackensack, NJ. In addition to these immediate goals, NJT desires to extend much of its' existing right-of-way, electrify the entire system so as to help in meeting the Clean Air Act requirements, reclaim much of the abandoned right-of-way in New Jersey for systems expansion, and complete a number of system improvements currently under way.

Some of the projects currently under construction, or soon to begin so, consist of a number of track improvements in the Newark-Hoboken vicinity that will allow trains that previously had no physical connection to New York City to travel

straight through to Penn Station in Manhattan. In addition to this work, a number of LRT lines are under consideration along the Hudson waterfront in North Jersey, and connection to the NJT system from Newark Airport will soon be possible. This work in the North Jersey area is balanced by a proposed extension to the PATCO system.

#### PATCO System Expansion

**Jim Schwarzwald** of NJT presented the systems improvement story as it relates to the South Jersey area. Mr. Schwarzwald indicated that the proposed extension of the PATCO system is in response to a number of former studies. The result of these studies has shown that the investment in an expanded network is warranted, and that a Draft Environmental Impact Statement should be prepared. This DEIS will form the basis for the alternative selection process.

A number of alternatives are under consideration. These include the so-called Full PATCO, Modified PATCO, LRT, Busway, and Heavy Rail alternatives.

The Full PATCO system will be an extension of the current PATCO technology and will consist of fully grade-separated right-of-way. A number of routes are being studied for this extension, but a possible alignment would take the system up the median of I-295 in South Jersey.

The Modified PATCO system would make use of existing, but abandoned, railroad right-of-way. This would drastically reduce the overall system cost because it reduces the need for the grade-separated construction. This technology would employ overhead catenary wires in lieu of the current use of the third-rail system.

The LRT alternative would employ similar cars as those used in West Philadelphia on the Subway-Surface lines. These cars allow for rapid and frequent service and are relatively low cost in terms of right-of-way costs and operational expenses.

The only other major alternatives are a Busway, which is a system of dedicated lanes and facilities for the exclusive use of buses, and a Heavy Rail alternative which would employ the abandoned rail lines in South Jersey.

#### Conclusion

The worsening traffic situation in the United States, an existing mass transit infrastructure that is grossly inadequate, and the growing environmental concerns, all point to a much needed expansion and revitalization of transit systems such as NJT. The presentation made at the February dinner meeting by Messrs. Kanareck and Schwarzwald clearly shows the role that Civil Engineers will play in this rebirth and reconstruction.

A lively and informative question and answer discussion between members of the audience and the speakers concluded this very interesting meeting.

## STANLEY SUBMITS SECTION'S ANNUAL REPORT

Philadelphia section, ASCE secretary **George J. Stanley** has submitted to National Headquarters the *Annual Report, Philadelphia Section, ASCE, Fiscal Year October 1, 1992 - September 30, 1993*.

As required by the National Society By-Laws, the Annual Report reviews the Section's activities, finances and membership; summarizes monthly meetings; technical, social and educational programs and operations. It includes data on Zone 1 and District 4 participation; the Reading Branch of the Philadelphia Section; Technical Groups and Committees; Publications; Younger Member Forums, encompassing the ASCE Student Chapters and Clubs of the area colleges and universities; Section Prizes, Awards and Scholarships; and other subsidiary and cooperative affiliations with outside civic and technical professional groups.

The Report conveys information helpful to the National ASCE Board of Direction, the Committee on Local sections and District Councils, Headquarters staff and other Sections - in evaluating Philadelphia Section affairs.

In addition to Intra-Section programs and functions, the volume describes in detail the Section's participation in the Engineering Technical Societies Council of Delaware Valley (ETSCO); the Annual Engineers' Week Committee of Delaware Valley; Joint Meetings with the Delaware Valley affiliates of the American Public Works Association (APWA), the American Society of Highway Engineers (ASHE), the South Jersey Branch of the New Jersey Section, ASCE; and the Philadelphia Post, Society of American Military Engineers (SAME). It conducts Continuing Education Seminars; membership drives, especially among students upon graduation; it honors its Life Members at a special annual monthly meeting ceremony; sponsors the Philadelphia Urban Manpower Program (PUMP), which provides training, financial assistance and technical help to disadvantaged youth interested in engineering careers.

As noted elsewhere in this issue of THE NEWS (see "Nominations for Office 1994-1995"), Mr. Stanley has been nominated for Section Vice President. Therefore, he will resign the office of Secretary when his election is confirmed on April 1, 1994. He will be succeeded by **Michael J. Carragher**, who is presently Assistant Secretary. The Section is grateful for George's innumerable extraordinary and outstanding contributions to the Philadelphia Section's progressive movement during his incumbency; and we are certain that he will be a splendid Vice President, with ultimate elevation to the presidency. We thank him for his key role in the great forward strides of the Section during his term as Secretary.



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## MARCH DINNER MEETING

March 8, 1994

Fischer's Restaurant, NE Phila.

### The Employee Trip Reduction Program

By *Bill Richards, Associate Editor*

The Phila. Section, ASCE, held its first meeting in Northeast Philadelphia in recent memory, and attracted a crowd of about 60 members to hear a presentation on the new Employee Trip Reduction Program being implemented under the Clean Air Act. At the meeting the Section also recognized 11 new Life Members to ASCE, four of whom were present and acknowledged. (See separate article elsewhere in this issue).

Our featured speaker was **James W. Rue**, Regional Director for Southeast Pennsylvania of the Pennsylvania Department of Environmental Resources (DER). This was Jim's second presentation to the Section since his appointment in September 1992, and his topic generated a lot of interest in the audience. In his position, Jim is responsible for about 250 employees and operation/implementation of DER programs in Bucks, Chester, Delaware, Montgomery, and Philadelphia counties. Previously to his DER appointment, Mr. Rue had been director of operations for A.T. Biochem, Inc. He also held various positions with International Biotechnologies, Pare Consulting Group, the Audubon Society of Rhode Island, and the U.S. Department of Interior.

Mr. Rue began by reviewing the discussions and processes that led to the development of the recent amendments to the Clean Air Act. During the late 1980's there was a great deal of concern nationally with severe non-attainment of ground-level ozone levels. Over three years every part of the country had to sample and classify its air. In

the metropolitan area of Philadelphia, this program included sampling during the hot stagnant summer of 1988. When the results were in, the Philadelphia area was declared in severe non-attainment, with one sample point in the city of Chester, and two across the Pennsylvania border in northern Delaware putting the region over the top. Organizations such as PenJerDel have challenged the scientific basis of this classification, but the U.S. EPA has held firm on its declaration.

Being in non-attainment has triggered the Employee Trip Reduction Program requirements of the Clean Air Act. This program targets the morning commuting period (6-10 am, Monday to Friday) to highlight cold engine start-up and the production of air pollutants in the morning which interact with the mid-day sun. All companies with over 1,000 employees have until November 1994 to develop a plan to reduce employee vehicle trips, or increase persons per vehicle. Companies with 100 to 1000 employees have until November 1995. Three areas concentric around center-city Philadelphia have varying goals. In center city the goal is 3.0 people per vehicle trip by 1997; in the urban ring, 2.5 people/vehicle, in the suburban ring 1.5 people/vehicle.

DER will be looking for the best efforts from corporations to comply with the rule. They will be having four staff members assigned to review over 2,500 plans. They will be looking for obvious violations or denial of compliance by corporations rather than having the time to investigate

*(Continued on Page 8)*

## LIFE MEMBERSHIPS AWARDED

Certificates of Life Membership in ASCE were awarded to Philadelphia Section members at the March 8, 1994 Dinner Meeting at Fisher's Restaurant in Northeast Philadelphia. The following members were in attendance at the meeting and received their Certificates in person from Section President **Bob Wright**: **Walter E. Capper, J. William Cornell, Leon Millsztein, and David Silverman.**

Life Member Awardees who were unable to attend the meeting and whose Certificates will be mailed to them are: **Edwin R. Barth, Carl A. Baumerte Jr., Kenneth R. Broome, David O. Clark, Joseph David, Raymond P. Johnston, George S. Lancaster Jr., Anthony J. Ricci, and Richard B. Salomon.**

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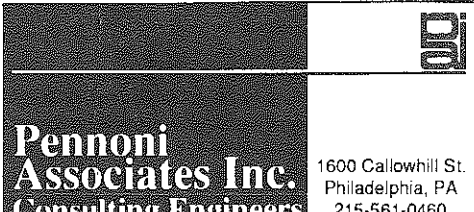
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## NOMINATIONS FOR OFFICE PHILADELPHIA SECTION ASCE FOR 1994-95

In accordance with the Constitution and By-Laws of the Section, the Nominating Committee appointed by President Wright and chaired by Past President Klaus Fuelleborn has submitted the following slate of nominees for elective office for the 1994-1995 administrative year:

President Elect – William G. Richards (one year as President Elect followed by one year as President)  
Vice President – George J. Stanley  
Secretary – Michael Carragher  
Membership Secretary – Richard P. Markwith  
Director – Sandra May (two years)  
Director – Chris Rood (two years)  
Director – Frederick C. Schmitt (two years)  
Director of Reading Branch – To Be Announced (one year)

Offices in which incumbents have one remaining year to serve are:

President – William T. Thomsen (following this year as President Elect)  
Treasurer – Darin L. Gatti  
Director – Jonathan Cheng  
Director – Drew Mihocko  
Director – Charles Sutphen  
Past Presidents to serve on the Board of Directors are:

Moustafa A. Gouda (one year)  
Klaus K. Fuelleborn (two years)  
Robert M. Wright (three years)

The above slate of nominees will be announced at the April 13, 1994 meeting. If no additional nominations are received by the Section Secretary by April 1, the above slate of nominees shall be declared as elected at that time and will be officially installed at the Section's Annual Dinner Dance on Sunday, May 15, 1994 at the Harbor League Club, Camden, NJ.

Our appreciation is extended to the Nominating Committee, which consisted of Klaus Fuelleborn, William Thomsen, William Richards, Susan Lior, George Stanley and Sidney Robin, with President Wright participating in absentia.

## YOUNGER MEMBER FORUM NEWS

Responses to our recent solicitation indicate strong interest in the Younger Member Forum. As such, a number of activities are being planned, beginning with a PE Registration Seminar and a "Get To Know Each Other" meeting. The PE Registration Seminar will be held April 5, 1994 at Drexel University. Keep your eyes open for further details on each, through separate mailings by YMF.

In other news, Allen Cadden and Rich Markwith attended the Northeast Region Younger Members Council Meeting in New York City March 4 and 5, 1994. The meeting focused on issues facing younger civil engineers and the society in general, such as: continuing professional development, mandatory Section dues and 'visioning.' For an update on the meeting or future activities feel free to contact Rich or Allen.

The YMF welcomes Allen W. Cadden, P.E., as President, succeeding Rich Markwith, who has done an outstanding job these past few years. Rich will become Membership Secretary of the Section for 1994-1995 (See "Nominations for Office - 1994-1995 elsewhere in this issue of THE NEWS). Allen is Senior Geotechnical Engineer at Schnabel Engineering Associates, Geotechnical and Geoenvironmental Consultants, West Chester, PA.

## TIMBER TRUSS SYMPOSIUM

(Continued from Page 2)

The slate of speakers will present topics of interest to architects, builders, engineers, historians and preservationists. This symposium will present topics and views from speakers known in their respective fields of endeavor for scholarship and dedication to the understanding and preservation of historic timber framed structures.

Registration for the symposium will be held at 9 am, with commencement scheduled for 10 am. Please call (610) 565-1131 for registration cost and materials or for more information. Accommodations and visitor attractions are near the symposium site.



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**PHILADELPHIA SECTION  
ASCE  
1992 MEMBERSHIP SURVEY**

The Survey was designed to determine the preferences of the membership in several major groupings, including Membership Grade, Section participation, and location. A comparison was made with each of the various categories and demographics of our membership. We have hoped that if preferences can be determined by both grade and age and location, it would provide your Board with statistical information to aid in our program development and therefore serve the general membership.

The total Philadelphia membership complement is approximately 1700. This complement can be broken down as follows:

- Phila. Section: 1270
- Reading Branch: 170
- Students: 260

The Phila. Section's complement can be further broken down:

- Affiliate: 90
- Associate: 347
- Member: 745
- Fellow: 86
- Honorary: 2

In both the Phila. Section and Reading Branch active membership is approximately 70%. That is, 70% of our membership who are required to pay Local dues to remain active have so elected. The remainder of the membership are assigned by National ASCE. In an effort to further differentiate the Phila. Section membership, we have defined a Participating Member as one who attends two or more officially sponsored functions in one year.

Zip-codes were grouped in 13 principal geographical areas, surrounding the Philadelphia Central Business District. We have considered the Section's membership area as two rings around the CBD. The inner ring would be the principal Philadelphia neighborhoods, New Jersey, and parts of Delaware, Montgomery, and Bucks Counties. The outer ring would be the suburban counties outlying the CBD bounded by the Blue Route, and PA. Turnpike. There is one notable exception, an area designated Main-Line. These are Zip-codes in the three suburban counties closely affiliated to the CBD by the regional transportation network. Reading Zip-codes were included in the outlying adjacent Montgomery County area.

Approximately 12% of our total membership responded to the survey, or 175 of 1440. Students do not pay Local dues and therefore were not solicited. Although the response was not large enough to significantly reduce the margin of error, it does provide us with a guideline to the membership's preferences. 43% of the respondents identified themselves as participatory members. The response from assigned membership in all grades was low. Assigned Members were therefore included with Active Members. Survey findings comparing ac-

tive and participatory membership to each other and our general membership profile can be summarized as follows:

- 40% of the membership utilizes an outer ring zip-code.
- 60% of the membership is between 22 and 46 years of age.
- Members accounted for 70% of the responses to the survey.
- 29% of the total respondents were participatory members.
- Inner circle zip-codes participate in Section functions at a higher percent in relative terms.
- The highest response of active membership to the survey was from the outer circle zip-codes.
- Age group 33 to 38 generated the highest response from both the participatory and active membership.
- Age group 47 to 52 generated the 2nd highest response from the participatory membership, again all in relative percent to the general membership.
- In the activity category 53% identified themselves as consultants, compared to 55% of our general membership.
- The highest relative response to the survey was from the government category in both active and participatory membership.
- There was near unanimity in the Section event priority, with one telling exception.

Subject matter:	1
Location:	2
Date/Time:	3
Food:	4
Networking:	5
Other:	6

Participatory membership rate Date/Time 2 with location 3.

There is, again, significant difference in the subject priority between active and participatory membership. This question did not require the respondent to choose one specific topic. It is therefore difficult to determine preference priority. It is surprising, however, that both groups rate structural and transportation programs low and legal topics high. The apparent discrepancy between project reviews and construction topics would seem contradictory. Environmental programs would also generate interest. The most common "Other" response from participatory membership was "maintain our current program balance."

**Priority Section Event**

Subject	Total Survey	Participatory Survey	Active Survey
Legal	1	1	1
Environmental	2	2	3
Construction	3	6	2
Transportation	4	4	5
Project Review	5	3	6
Structural	6	5	4

During the last several years, both general membership and Technical Group meetings have shifted meeting locations to meet the demands of

our membership. Very few members in their written comments expressed a need for a central meeting location. The King of Prussia Area is the overwhelming preferred meeting location by our active membership. The participatory membership however prefers a CBD location. There is agreement between the two groups on the principal issues which are perceived as preventing participation. Again, Participatory Members do not believe the meeting locations are significantly inconvenient. The general issue of lack of time is considered the most significant. Any future surveys should ask respondents to cite significant time restraints. Family issues were frequently mentioned in the written responses.

The last two questions concerning meeting location and the participation issue seem to generate the most significant differences between active and participatory membership. A separate sort was undertaken to compare responses by location and age regardless if one considered himself a Participatory Member. Findings are summarized as follows:

- 70% of outer ring zip-codes cite King of Prussia as a preferred meeting location.
- Inner ring zip-codes cite a CBD location at 36%.
- Center City and Main Line Zips rate the CBD at 44%.
- A City Line Location was the second choice (26%) of inner ring zip-codes.
- King of Prussia (19%) was second choice of the CC & ML Zips.
- Drexel University did not rate a significant percent by any group.
- Lack of time (47%) was cited as the most significant issue impacting participation in the inner ring zips.
- The CC/ML Zips listed the time issue as most significant at 28% and inconvenient meetings at 20%.
- The most significant issues in the outer ring zips were inconvenient meeting locations(30%) and lack of time (28%).
- The King of Prussia Location was cited (40%) as the most preferred meeting site by all age categories, with the exception of 47 to 52.
- A CBD meeting location priority increased with the age group. The 47 to 52 cited this location at 37%.
- A City Line Ave. Location preference again increased with each succeeding age group.
- Time was the most significant-issue impacting participation by the age groups 22 to 46.
- The 53 to 62 age group considers inconvenient meeting locations as the principal deterrent to participation. This group also considered high dues issue more significantly than the younger age groups.
- The 47 to 52 grouping rated uninteresting programs as principal issue.
- Lack of employer support in providing time was a significant issue by the 33 to 38 and 53 to 62 age groups.
- In relative terms, respondents in the age groups 22 to 32, 33 to 38 and 47 to 52 predominate in inner ring Zip-Codes.

• Groups 22 to 32 and 39 to 46 predominate the CC/ML.

• In the outer ring 33 to 38 and 53 to 62 groups predominate.

It would be difficult to provide any social significance to this sample due to the low response to the survey. We can, however, draw several general assumptions; especially when we compare our survey results with the demographics of the Phila. Section's Board of Directors. The Board and Participatory members are in the intermediate age groups, 39 to 52. Consultant and Government activity predominate on both the Board and Participatory. This activity seems to be associated with organizations affiliated with CBD activities.

The Board of Directors, therefore, has determined that the following activities should be considered in the development of future programs of the Section and affiliated Technical Groups.

1. Monthly Meeting Program Balance be maintained.
2. Legal, geo-technical and environmental programs be added.
3. Add another King of Prussia meeting date to the schedule; jointly sponsored by the Reading Branch.
4. At least two monthly CBD meetings be held each program year.
5. At every monthly meeting some sort of formal business activity or discussion be planned. Subject matter hopefully of interest to an Active Member which may attract his continuing interest.
6. Expand and increase frequency of Technical Groups meetings.

Respectfully submitted,  
George J. Stanley, Secretary  
Phila. Section, ASCE

**Editor's Note:** *The Phila. Section is grateful to Secretary Stanley for this outstanding report. It reflects, as have so many of his research projects on the Section's behalf, his inexhaustible energy and tireless dedication to the improvement of its programs, membership attendance and participation, and all other major functions.*

## VILLANOVA WATER SURFACE PROFILES COURSE

MAY 18-20, 1994

Villanova University announces a short course entitled "Computational Analysis of Water Surface Profiles Using HEC-2."

### Course Objective

This course has been designed to familiarize the water resource professional with both the theoretical and practical aspects of using HEC-2, the steady flow, water surface profile computer model developed by the Hydrologic Engineering Center of the U.S. Army Corps of Engineers.

### Course Cost

Cost of the course is \$650. ASCE members will receive a \$50.00 discount. Register by April 20th to receive an additional \$25 discount. Contact

**Dr. R.G. Traver**, Asst. Professor, Department of Civil and Environmental Engineering, at (215) 519-7899 for additional details. Enrollment is limited to 35 students.

## MARCH DINNER MEETING

(Continued from Page 5)

compliance. As Jim indicated, "trying and failing is not the same as failing to try." It is clear that the program will not be among DER's highest priorities.

Implementation is expected to take several forms, many of them using innovative work habits. Compressed work weeks (four day-10 hour per day weeks) or completing two weeks work in nine days may be tried. Telecommutes, or working at home by phone or computer are possible. Conventional responses would include car pooling or mass transit.

A very lively and vocal question and answer period followed Mr. Rue's presentation. Many questions related to the ability of government and society to dictate the practices of individuals and corporations in a free society. Comparisons to programs require non-smoking areas, mandatory seat-belt use, and enforcement of speed limits were made to illustrate both pro and con on the subject. As usual, many of the ASCE members were zealously opinionated and sometimes evocative in the comments on this topical and controversial subject. It was a highly interesting meeting.

## SANDRA MAY'S ACCEPTANCE SPEECH

**EDITOR'S NOTE:** See page 4 of this issue of THE NEWS for article on Sandra's award as "Delaware Valley Young Engineer of the Year."

I want to remember this moment clearly, or if I may use my favorite phrase, "I'm taking notes!" Perhaps some may consider this response as sounding typical; coming from an Engineer, that is... If so, it won't be the first time I've been classified as a "Typical Engineer."

What is a Typical Engineer? Does it have anything to do with the fact that I carry my calculator with me at all times? Perhaps they are speaking of the fact that my shoes are separated by color and then alphabetized by color scheme? I'm not so sure what the parameters for TYPICAL are, but I am sure that I'm just me!

Sandra May grew up in Atlantic City, NJ in the inlet area during the era of a casino-free resort city. These were the days where tourists flocked to attractions like Captain Starns and the Steel Pier; the first being a pier where you could feed sea lions with 10¢ worth of minnows. The second was an amusement pier where you could ride the roller coaster all day, eat cotton candy, peanuts and fudge with just \$5.00.

It was during these happy times that I discovered my love for gadgets. Acting as my brother's assistant mechanic, I labored at making go-carts and mobile trailer homes. Eventually, my tom-boy-ish acts were replaced with a passion for reading.

I couldn't read enough. When I was supposed to be sleeping, I'd sneak a flashlight under the covers. I drove everyone crazy from my best friend to my beloved parents. This love for reading was so strong I felt it my civic duty to share my book collection with the neighborhood.

So, with handmade book jackets, a date stamp and an ink pad, I established my own library. I even charged a penny a day for overdue books.

Although a happy child, I knew at an early age that I would leave A.C. and explore the world. But in my quest, I wanted to make a difference.

Long before receiving an acceptance letter from my college of choice, Drexel University, I began searching for college funds. I was particularly interested in one scholarship. However, I was advised not to apply because of the color of my skin. But, guess what? I did apply! The outcome? A full 4 year scholarship. This was my first big eye opener in life. It didn't stop here/ there were book scholarships and generous monetary gifts.

Four years later with a depleted savings account and a loan shortage, I approached the Dean of Engineering. The outcome? You guessed it. Drexel came through for me.

Lesson learned? Once again, someone believed in me and decided to give me a chance — a chance to make a difference!

This month, I had the honor of chairing the African American History Celebration for PECO's Montgomery County Division. I saw this as an opportunity to share three things: creative talents of the PRIME students at Lambertton, black culture and accomplishments, and PECO's efforts in promoting cost and safety benefits of NGVs.

So I organized a youth talent show with the students as our showcase. On the day of the event, they were transported in our compressed natural gas school bus. Afterwards, a very excited student who had just returned from using our newly renovated restroom facilities stated, and I quote, "Ms. May, first you pick us up in a bus that runs on natural gas and then you let us use bathrooms that don't require handles once you are finished working. Boy, PECO Energy is everything!"

Don't you just love it? What a way to teach a kid about new technology!

Along with opportunity, it also helps to have support. As I look out into the audience, I feel so grateful for the familiar faces of friends, colleagues and co-workers; most especially my family.

My dad — who instilled the dream of college. My godfather — whose efforts led to my love of the Lord. Grandmother Pease who gave definition to the word "values" and, last but not most certainly not least, my mother — whose strength supported me through it all! Support definitely goes a long way!

In closing, I'd like to say "Thank You" to Bill Schilling and The Young Engineers Forum for making this award possible: my sponsor, Phila. Section, ASCE, and my supporters — PECO Energy.

The things I do are done without the expectation of recognition, but instead with the anticipation of hope that more young people will pursue math and science based careers.

Thank you, for the chance to make a difference!



## 1994 Philadelphia Section ASCE – Salary and Benefits Survey

In order to aid our members and their employers in determining satisfactory salaries and benefits, the Philadelphia Section of the American Society of Civil Engineers is making a bi-annual survey of its members. Please complete this questionnaire, fold so that the return address is on the outside, tape and return by May 31, 1994. The results will be published in the first issue of THE NEWS in the Fall.

### A. PERSONAL DATA

1. Age \_\_\_\_\_
2. Years of full-time employment \_\_\_\_\_
3. Race
  - \_\_\_\_\_ a Caucasian
  - \_\_\_\_\_ b African American
  - \_\_\_\_\_ c Hispanic
  - \_\_\_\_\_ d Asiatic
  - \_\_\_\_\_ e Other \_\_\_\_\_
4. Sex
  - \_\_\_\_\_ a Male \_\_\_\_\_ b Female
5. Education (Check highest level)
  - \_\_\_\_\_ a No Degree
  - \_\_\_\_\_ b Bachelor's Degree
  - \_\_\_\_\_ c B.S. Degree+15 hours
  - \_\_\_\_\_ d Master's Degree
  - \_\_\_\_\_ e Doctorate Degree
6. ASCE Membership Grade
  - \_\_\_\_\_ a Student
  - \_\_\_\_\_ b Associate
  - \_\_\_\_\_ c Member
  - \_\_\_\_\_ d Fellow
  - \_\_\_\_\_ e Life
7. Registration
 

no	yes (number of states)
_____	_____ a EIT
_____	_____ b PE
_____	_____ c LS
8. Other Membership

Indicate the number of Professional/Technical Organizations other than ASCE of which you are a dues-paying member (i.e.: NSPE, ACI, AWWA, ASTM, etc.) \_\_\_\_\_

### B. EMPLOYMENT DATA

1. Income source
  - \_\_\_\_\_ a Self-employed
  - \_\_\_\_\_ b Salaried
  - \_\_\_\_\_ c Commissioned
  - \_\_\_\_\_ d Retired
  - \_\_\_\_\_ e Unemployed
  - \_\_\_\_\_ f Student

### 2. Type employer or self-employment

- (Check one)
- \_\_\_\_\_ a Consultant
  - \_\_\_\_\_ b Contractor/Builder
  - \_\_\_\_\_ c Federal Gov.
  - \_\_\_\_\_ d State Gov.
  - \_\_\_\_\_ e Municipal, Local or Regional Gov. or Auth.
  - \_\_\_\_\_ f Utility (Private & Public)
  - \_\_\_\_\_ g Manufacturer
  - \_\_\_\_\_ h Education
  - \_\_\_\_\_ i Sales
  - \_\_\_\_\_ j Other (explain) \_\_\_\_\_

### 3. Primary Responsibility

- (Check one)
- \_\_\_\_\_ a Technical
  - \_\_\_\_\_ b Sales
  - \_\_\_\_\_ c Supervisory
  - \_\_\_\_\_ d Administrative
  - \_\_\_\_\_ e Other (explain) \_\_\_\_\_

### 4. Do you supervise other people?

- \_\_\_\_\_ a Yes \_\_\_\_\_ b No

### 5. Number of different employers since graduation (including current) \_\_\_\_\_

### 6. Do you have a second job?

- \_\_\_\_\_ a Yes \_\_\_\_\_ b No

### 7. Years with current employer \_\_\_\_\_

### 8. Primary County of Employment

- (Check one)
- \_\_\_\_\_ PA a Bucks
  - \_\_\_\_\_ b Chester
  - \_\_\_\_\_ c Delaware
  - \_\_\_\_\_ d Montgomery
  - \_\_\_\_\_ e Philadelphia
  - \_\_\_\_\_ NJ f Burlington
  - \_\_\_\_\_ g Chester
  - \_\_\_\_\_ h Gloucester
  - \_\_\_\_\_ i Other (Identify \_\_\_\_\_)

### 9. Method of Commuting

- (Check one)
- \_\_\_\_\_ a Drive
  - \_\_\_\_\_ b Mass Transit
  - \_\_\_\_\_ c Car Pool
  - \_\_\_\_\_ d Walk
  - \_\_\_\_\_ e Drive and Mass Transit
  - \_\_\_\_\_ f Other (Identify \_\_\_\_\_)

### 10. Approximate commuting time

(one way \_\_\_\_\_)

### C. SALARY AND BENEFITS

1. Salary (include normal overtime) \$ \_\_\_\_\_ per yr.
2. If bonus or commissions are paid in addition to above salary, indicate expected amount per year \_\_\_\_\_
3. Overtime Remuneration
  - \_\_\_\_\_ a None
  - \_\_\_\_\_ b Time (Compensatory)
  - \_\_\_\_\_ c Paid at regular pay rate
  - \_\_\_\_\_ d Paid at time&a half rate
  - \_\_\_\_\_ e Double Time
4. Vacation (incl. Admin. Leave, Personal Days, etc.) \_\_\_\_\_ days
5. Holidays \_\_\_\_\_ days
6. Sick Leave (number of days at full salary) \_\_\_\_\_ days
7. Insurance (Company Paid) (For "a" thru "h" fill in:
  1. 100% company paid
  2. Partially company paid
  3. Available, employee pays all
  4. Not available
  - a Hospitalization \_\_\_\_\_
  - b Major Medical \_\_\_\_\_
  - c Dental \_\_\_\_\_
  - d Optical \_\_\_\_\_
  - e Disability \_\_\_\_\_
  - f Life \_\_\_\_\_
  - g Legal Fees \_\_\_\_\_
  - h Child Care \_\_\_\_\_
8. Pension Plan \_\_\_\_\_ yes \_\_\_\_\_ no
9. Profit Sharing
  - yes \_\_\_\_\_ no \_\_\_\_\_
  - not applicable \_\_\_\_\_
10. Formal severance pay policy
  - yes \_\_\_\_\_ no \_\_\_\_\_
11. Contributing Education tuition reimbursement
  - yes \_\_\_\_\_ no \_\_\_\_\_
  - If yes, maximum % \_\_\_\_\_

(OVER)

D. OPINIONS

- 1. Are you satisfied with your current employment situation?
  - a Unsatisfied
  - b Somewhat unsatisfied
  - c Satisfied
  - d Most satisfied
  - e Very satisfied
- 2. Do you believe that, in your current employment situation, you are performing true engineering work.
  - a Yes
  - b No, primarily administration, supervisory, business, promotion, etc.
  - c No, primarily technician/draftsperson
  - d No, other functions
- 3. Do you believe that your work is properly reviewed?
  - a Yes
  - b Yes, but could be better
  - c No
  - d Not applicable
- 4. Do you think you will be looking for a new job within the next 2 years?
  - Yes  No    If Yes, why?
  - a Salary
  - b Boss
  - c Lack of responsibility
  - d Other (Explain)

- 5. If you were looking for a new job, what would be your most critical concern?
  - a Pay and benefits
  - b Company reputation
  - c Responsibility
  - d Security
  - e Location
  - f Type of work
  - g Other (explain) \_\_\_\_\_
- 6. How easy do you believe it would be for you to find a new job?
  - a Very easy
  - b Easy
  - c Somewhat difficult
  - d Difficult
- 7. Do you believe your salary, considering your experience and ability, compared to other Civil Engineers, is:
  - much lower
  - lower
  - similar
  - higher
  - much higher
- 8. Do you believe your fringe benefits, compared to other Civil Engineers, are:
  - much lower
  - lower
  - similar
  - higher
  - much higher

- 9. Is your professional physical environment (office appearance, privacy, secretarial support, etc.) important to you?
  - a Yes     b No
- 10. Are you satisfied with your professional physical environment?
  - a Yes     b No
- 11. Do you agree or disagree with the following statements?
 

	agree	disag.
a. Registration should be required for all Engineers as a condition of continued employment	<input type="checkbox"/>	<input type="checkbox"/>
b. Continuing Education should be required to maintain registration	<input type="checkbox"/>	<input type="checkbox"/>
c. Consulting work may be competitively bid when the requirements are reasonably well defined	<input type="checkbox"/>	<input type="checkbox"/>
d. Advertising, by engineers, that is not self-laudatory is acceptable	<input type="checkbox"/>	<input type="checkbox"/>
e. There is currently a shortage in the number of Civil Engineering Graduates	<input type="checkbox"/>	<input type="checkbox"/>
- 12. If you had a second chance would you still become a Civil Engineer?
  - a Yes     b No

Additional comments and suggestions for future questions: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



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