

# SOCIETY OF WOMEN ENGINEERS

August 1996

## **SUSAN L. BEST, P.E., ELECTED TO 1996 SWE COLLEGE OF FELLOWS**

Susan L. Best, P.E., Senior Life member of the Society of Women Engineers (SWE), Philadelphia Section, (resident of Havertown), has been elected to the 1996 SWE College of Fellows. The Fellow grade of membership is an honor conferred on Society members in recognition of their outstanding service to the advancement of public awareness of engineering as a profession for women, and who have been recognized for their contributions to the fields of engineering and/or engineering management.

In 1986, Best was appointed Manager of Technical Services for McCormick, Taylor & Associates, Inc. In this position, she reports directly to the President and the other technical members of the firm. Previously, Best was the Manager of the Traffic Group for McCormick Taylor and was responsible for the successful completion of the traffic and safety analyses for the many environmental impact studies, and for traffic engineering for the Highway and Bridge Groups.

Best received her BSCE with honors from the University of Delaware in 1976 and her MS in civil engineering from California State University in 1979. She holds professional engineering registration in Delaware, Pennsylvania, New Jersey and Maryland. She is also an active member of the National Society of Professional Engineers, the Institute of

Transportation Engineers, the American Society of Civil Engineers, the American Society of Highway Engineers, and the American Consulting Engineers Council. She was proclaimed the Delaware Valley Young Engineer of the Year in 1990 by the Engineers' Club of Philadelphia and the Delaware Valley Engineering Societies, and has the distinction and honor of being the first awardee. She has also been honored by two of her employers, having received an Outstanding Achievement Award in Traffic Engineering from McCormick, Taylor & Associates in 1989 and the Presidents Award from Barton-Aschman Associates in 1981. Both awards were made in recognition of her outstanding work and contributions to the firms. Her biography is currently listed in *Who's Who in the East*.

A senior life member of SWE, Best has served the Society in a multitude of capacities at the local, regional and national levels. She joined the Society in 1975 and has been continuously active in three sections: Los Angeles, Chicago Region and Philadelphia.

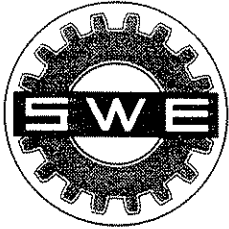
The Society of Women Engineers (SWE) is a non-profit educational service organization of women and men dedicated to expanding the image of the engineering profession as a positive force in the quality of life. SWE has an international membership of more than 16,000 women and men with sections in 78 areas of the United States and Puerto Rico.

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# SWE Fellow Nomination for Ms. Susan L. Best, P.E.

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Mr. Richard Mulford, Engineers Club of Philadelphia	
Mrs. Barbara Faust, SWE Fellow	
Mr. Thomas Caramanico, P.E., McCormick, Taylor & Associates	
Mr. Richard Best, P.E., Institute of Transportation Engineers	
<i>Mr. Best is not a relative of Ms. Best.</i>	
Appendix B - Photograph	



## SOCIETY OF WOMEN ENGINEERS

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### Philadelphia Section

% The Engineers Club of Philadelphia  
470 Public Ledger Building, Sixth and Chestnut Streets, Philadelphia PA 19106

Dear Fellow Selection Committee,

Susan Best has been an integral part of the Philadelphia Section of SWE since 1984. She has participated as Delaware Valley Engineers Week Council Delegate 1986, Engineering & Technical Societies Council (ETSCO) Delegate 1988-1993 (a local area engineering societies umbrella organization), Section Treasurer, 1991-1993, 1995 Region E Conference Fundraising Committee Chair, Treasurer for SWE-Philadelphia 2000 Convention Bid Proposal 1995, Scholarship Program Fund Development Chair, 1995-present.

As Delaware Valley Engineers Week Council Delegate and ETSCO Delegate, Susan's actions generated a positive image for SWE-Philadelphia that has led to successful mutual activities with fellow engineering organizations and affected an increase in our membership; furthermore, Susan's high profile participation in these activities has been instrumental in publicizing SWE-Philadelphia and women's contributions to engineering.

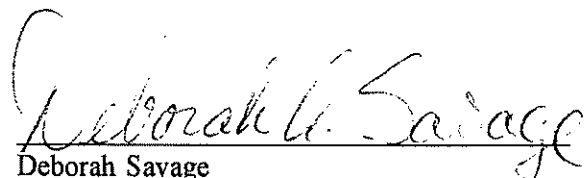
As section treasurer, Susan established a benchmark by which all treasurer's should be measured. As fundraising chair for the Region E meeting and our scholarship program, Susan has made these programs work. She has obtained targeted funding to ensure success of the programs and is proactive in ensuring future funding needs. Susan has an innate ability for performing treasury and fundraising activities. Her efforts in this position have allowed SWE-Philadelphia to climb to a new level as a section and establish a "corporate" approach to our budgeting and fundraising activities, which will have the effect of stabilizing and growing the Philadelphia section. As it is well known, a section's ability to thrive and expand depends on having adequate resources to start challenging new projects; this in turn attracts new members.

Besides providing her talents and leadership in these roles, Susan has also participated in numerous section activities including Badge Day with the Philadelphia Council Girl Scouts, Villanova University Student Section SWE Counselor in 1986, and the Women in Engineering Program at Drexel University as a speaker and role model.

Furthermore Susan has been instrumental in providing continuity and cohesiveness to the Philadelphia section by lending her talents and knowledge to her successors (and the other section officers) several of whom were new to SWE and in need of guidance. As a member of the section's Board of Trustees ("Old Guard"), she has been instrumental in Philadelphia section's vitality and endurance.

Susan's tireless efforts on SWE's behalf, her countless contributions to this section and others have earned her the right to be named a Society Fellow.

Sincerely,



Deborah Savage  
SWE-Philadelphia President



Vicki Land  
SWE-Philadelphia CSR Representative

## Nominating Statement

Susan Best has been continuously active in SWE, technical engineering organizations, her church and other organizations, while steadily advancing in her career. Her talents and contributions have been recognized by her employers and the engineering community many times. Through her professionalism in these activities, she has demonstrated the contribution women can bring to engineering, along with serving as a role model for younger women engineers.

While a civil engineering student at the University of Delaware, Ms. Best became a member of the Society of Women Engineers and is now a Senior Life Member. Since then, she has served the Society at all levels, local, regional and national. She has been instrumental at the local level, providing leadership and hours of service to three sections: Los Angeles, Chicago and Philadelphia. At the national level, she contributed to the development of the Society's regional structure as the Procedures Chair.

Ms. Best believes strongly in engineering as a profession for women, and has been actively involved in the Institute of Transportation Engineers and Philadelphia area engineering councils. She is currently president-elect of ITE District 2, culminating more than a decade of leadership in a progression of section and district offices. District 2 encompasses Pennsylvania, Delaware, Maryland, northern Virginia, and southern New Jersey and serves 900 members.

Ms. Best was recently been appointed Manager of Technical Services for McCormick, Taylor & Associates, Inc. in Philadelphia, providing a variety of technical services both to the President and the other technical members of the firm. She is the highest ranking female engineer at her firm and is a licensed engineer in Pennsylvania, Maryland, New Jersey and Delaware.

Ms. Best also finds time for family and spiritual life. She is active in her son's life, supporting him in the Boy Scouts of America and in PAGE, a state-wide program for gifted education in Pennsylvania. She is a leader at her church, donating her time as treasurer for the past eight years and is currently a member of the handbell choir and serving on the Constitution Committee.

## Biography

Ms. Best began her engineering career as a civil engineering student at the University of Delaware. She graduated in 1976 with high honors. Fortunately, those were days of opportunity for engineers and she easily landed a job with Bechtel Power Corporation in Los Angeles while her husband pursued his doctorate at the University of California-Santa Barbara. While working full-time she completed her Masters in Civil Engineering at California State University in 1979, specializing in transportation and structural engineering. She left Bechtel when her husband completed his PhD and found employment in Chicago. During her three years in LA, she was active in the local SWE section, attending meetings, and serving on various section committees.

Upon moving to Chicago, Ms. Best continued her career as a structural engineer with American Can Company. She expanded her service to SWE and began taking a more active leadership role. She also began her trademark of volunteering to be treasurer of whatever organization she joined. A year later she moved to Barton-Aschman Associates so she could pursue her primary interest, transportation engineering. Ms. Best left Barton-Aschman for the Metro Transportation Group in 1982, the same year she assumed leadership of the Chicago Regional Section. The following year marked the birth of her son, Andrew. Never one to back down from a challenge, Ms. Best was re-elected president, returned to work part-time, chaired SWE's national Membership Committee and continued as her church's treasurer. Her leadership in the Institute of Transportation Engineers was also evolving and she served as Director of the Illinois Section.

In 1984, the family returned to the East Coast and Ms. Best found employment with Orth-Rodgers and Associates. She rapidly assimilated into the local engineering community, joining up with the local sections of SWE, and ITE, as well the Engineers Club of Philadelphia and the Delaware Valley Engineers Council. She switched from chairing SWE's Membership Committee to the Procedures Committee, where she helped direct the preparation of the operating procedures to implement SWE's regional structure. Two years later, she was elected treasurer of Temple Lutheran Church, a position she still fills today. Along the way, she joined McCormick, Taylor & Associates, another wise move, for she had the opportunity to develop a traffic engineering group which has grown to ten people. She was recently promoted Manager of Technical Services and is the highest ranking women engineer at McCormick Taylor, a firm employing forty engineers with a staff of 110.

In 1989, Ms. Best completed a term as Tellers Committee chair for SWE and volunteered for Region E Treasurer, a position she has held under four regional directors. She lent her considerable expertise as treasurer for two years to the Philadelphia Section from 1991 to 1993 and is currently more interested in raising funds for the section than in documenting them. In 1990, her engineering skills and community service were recognized by the Delaware Valley engineering community as she was named the first Young Engineer of the Year. Her involvement in ITE continued as she rotated through the local and regional offices. She is currently the President-elect for District 2 of ITE.

Throughout her engineering career, Ms. Best has also promoted engineering through her involvement with science fairs, career days and presentations to grade school students. Her active involvement in a variety of engineering organizations has given her ample opportunity to give students a better understanding of engineering.

As her son grew, Ms. Best found another facet of life to embrace, and began volunteering in various capacities with Cub Scouts, Boy Scouts and the Havertown affiliate of the Pennsylvania Association for Gifted Education. Following the lead of her son, she started karate in 1989 and today is a second degree black belt. She remained active at church and was acknowledged for her contributions with a Temple Honor.

## Society of Women Engineers Leadership and Service

A senior life member of SWE, Ms. Best has served the Society of Women Engineers in a multitude of capacities at the local, regional and national levels. She joined the Society in 1975 while a student at the University of Delaware and has been continuously active in three sections: Los Angeles, Chicago Region and Philadelphia. Her offices and committees chairs are listed below. Besides leading and organizing Society events, Ms. Best has also judged science fairs, and spoken numerous times to elementary, high school and college students in a variety of formats.

Ms. Best contributes to the Philadelphia Section as a leader, as a doer, and as a valuable procedures and protocol aide to the section officers. Currently she is the Region E treasurer, the Philadelphia Section's Engineers' Week Council Delegate and is coordinating scholarship fundraising, which SWE-Philadelphia has not previously done on an annual basis. She is amassing a database of local technology and engineering firms to aid in the section's goals of funding annual scholarships for each of SWE-Philadelphia's seven local student sections. This year she has also participated in a panel discussion on volunteerism, represented SWE-Philadelphia at a local career fair for high school girls and participated in section scholarship judging. Last year, when no one else was willing, she volunteered to solicit corporate donations for the Region E Spring Conference and collected \$4500.

At the national level, she has served on five committees, serving a total of six years as a chair of three different committees: the Tellers, Procedures and Membership Committees.

### Los Angeles

Career Development Conference Committee, 1977-1978  
Vice-Chair, 1979  
Student Section Liaison, 1978-1979  
LA Council of Engineers and Scientists Delegate, 1979

### Chicago Region

Career Guidance Chair, 1980-1982  
Treasurer, 1980-1982  
President, 1982-1984

### Philadelphia

Engineers Week Committee Delegate, 1986-present  
Engineering and Technical Societies Council Delegate, 1988-1993  
Treasurer, 1991-1993  
1995 Region E Spring Conference Committee  
Scholarship Fund Development, 1995

### MidAtlantic Region

Treasurer, 1989-present

### National

Student Section Study Committee, 1980-1981  
Membership Committee Chair, 1982-1984  
Nominating Committee, 1983-1984  
Procedures Committee Chair, 1984-1987  
Tellers Committee Chair, 1988

## Public Awareness Service

Throughout her engineering career, Ms. Best has promoted engineering as a field for women through her involvement in Society of Women Engineers' programs and events, as a member and leader of technical organizations and by her participation in the engineering community.

As a member of the student section at the University of Delaware, she spoke several times at local high schools on what it was like to be an engineering student. As part of a National Science Foundation program at SWE-Los Angeles, she participated in presentations to both small and large groups of students as well as faculty members and guidance counselors at several Los Angeles area junior high schools.

Ms. Best was actively involved in both the Certificate of Merit program and science fair judging while a member of the Chicago Regional Section of SWE. In addition to coordinating these activities, she made numerous presentations at local high school honors programs, the Chicago Public School Science Fair, the Chicago Parochial Science Fair, and suburban regional science fairs. Before leaving Chicago, she participated in initial discussions with the Chicago Museum of Science and Industry on efforts to promote the public's awareness of women engineers.

Ms. Best continued her public awareness service at SWE-Philadelphia, participating several times in Girl Scout Badge Day with the Philadelphia Council of the Girl Scouts of America. In an effort to reach students early, she has spoken to elementary school students as part of Career Day activities. She has judged and presented awards at the Delaware Valley Science Fairs, the largest regional science fairs. She has participated in Career Day activities sponsored by the Delaware Valley Engineering and Technical Societies Council.

The above activities have been primarily geared to students and their parents. However, Ms. Best has also promoted awareness of women in engineering throughout the engineering community by her active involvement in various technical organizations. She has been a member of the Delaware Valley Engineers Week Council since 1985 and is currently serving her second year as Senior Vice Chair. She has been active in the Institute of Transportation Engineers since 1984 and is currently Vice President (and President-elect) of District 2 of the Institute, which includes Pennsylvania, southern New Jersey, Delaware, Maryland, and northern Virginia. Even in this day and age, it goes without saying that the membership of these groups is predominately male. Through her professionalism in these activities, she has demonstrated the contribution women can bring to engineering, along with serving as a role model for younger women engineers.



## Recognized Contributions to the Fields of Engineering and Engineering Management

Ms. Best has been recognized on several occasions for her contributions to engineering. In 1980, she was presented the President's Award by Barton-Aschman and Associates for her outstanding work at the firm. This award was presented to her after only one year of service to the firm. In 1989, she was recognized for Outstanding Achievement in Traffic Engineering the first year her current employer, McCormick, Taylor & Associates, Inc., made such presentations. In 1990, again, in the first year the award was presented, she was recognized by the Engineers Club of Philadelphia and the Engineering Societies of the Delaware Valley as the Young Engineer of the Year for her achievements in engineering and her community service. Her biography is currently listed in *Who's Who in the East*.

In the Delaware Valley Engineers Week Council, it is the duty of the Chair of the Council, who is also Engineer of the Year, to appoint the vice chairs. In recognition of her efforts over the years, she was appointed Vice Chair of the Council in 1993 and Senior Vice Chair in 1994 and 1995. Her appointment to these positions is evidence of her contribution to the engineering community.

When Ms. Best joined McCormick Taylor, she became the only full-time traffic engineer on staff. Since then, she has expanded the traffic engineering capabilities of the firm, which now employs eight traffic engineers and two traffic engineering technicians. As Manager of the Traffic Group and now Manager of Technical Services, she is the highest level woman engineer in the firm.

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## Education and Work

### WORK EXPERIENCE

#### ***McCormick, Taylor & Associates, Inc., 1985 - present***

Ms. Best has worked for McCormick, Taylor & Associates since 1985 and was recently appointed Manager of Technical Services for the firm. In this newly created position, she reports directly to the President and provides a variety of technical services both to the President and the other technical members of the firm. Given the recent creation and the nature of the position, the specific duties of this position will be defined as time moves on. However, some of the duties include: creating a coordinated training program for the technical members of the staff, managing department technical resources, providing research and general technical assistance to the President, providing computer application assistance to the computer systems operator, and providing assistance on critical projects within the company. She will continue to provide traffic engineering and project development assistance and serve as project manager.

Previously, Ms. Best was the manager of the Traffic Group for McCormick Taylor and was responsible for the successful completion of the traffic and safety analyses for the many environmental impact studies, and for traffic engineering for the Highway and Bridge Groups.

For many years, Ms. Best was the primary traffic and transportation engineer for McCormick Taylor, providing traffic engineering expertise on a variety of projects.

#### ***Orth-Rodgers and Associates, 1984-1985***

While with Orth-Rodgers, Ms. Best's traffic analysis responsibilities encompassed traffic impact, access, circulation, and trip generation studies; intersection capacity analysis; and functional design of roadway improvements. She prepared permit and construction plans for traffic sign designs or modifications required by new developments.

#### ***Metro Transportation Group, Inc., 1982-1984***

While at Metro Transportation Group, Ms. Best performed traffic impact analyses for office, commercial, and residential developments throughout the Chicago area. She analyzed the access and circulation surrounding new developments, identified improvements to handle site-generated traffic and proved expert testimony at planning and zoning hearings. She assisted in reviewing and modifying parking lot systems. She provided traffic engineering support to several communities in the Chicago area and assisted in municipal-wide speed and intersection control studies. When the firm obtained its first personal computer, she trained the office staff.

#### ***Barton-Aschman Associates, Inc., 1980-1982***

Ms. Best began her traffic engineering training with Barton-Aschman. She performed traffic impact analyses, transportation and parking analyses and participated in access, circulation and parking studies. She set-up and supervised comprehensive parking occupancy studies and analyzed parking and land-use data to determine parking needs.

#### ***American Can Company, 1979-1980***

While at American Can, Ms. Best provided design, specifications and cost estimates for structural work required for proper plant operations and building maintenance. She performed building inspections of manufacturing facilities.

***Bechtel Power Corporation, 1976-1979***

Ms. Best began her professional career as a structural engineer for Bechtel Power Corporation. In her first assignment, she was responsible for the seismic design of cable tray and conduit raceway supports for a nuclear generating station. Her duties included design of supports, ordering of miscellaneous structural steel, review and approval of field change requests, and resolving problems encountered during field installations. The position provided for increasing responsibility until she became lead engineer. In her second assignment at Bechtel, Ms. Best was responsible for coordinating material and information between a test facility and vendors as part of the Cable Tray and Conduit Raceway Test Program. She performed detailed computer analysis of the effects of seismic loads on cable tray systems. She co-wrote a design guide for the design of these systems to survive seismic loads.

**EDUCATION**

Ms. Best received her BSCE with high honors from the University of Delaware in 1976 and her MS in civil engineering from California State University in 1979.

**PROFESSIONAL REGISTRATION**

Ms. Best is a registered Professional Engineer in Delaware, Pennsylvania, New Jersey and Maryland.

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## Publications and Honors

Ms. Best was proclaimed the Delaware Valley Young Engineer of the Year in 1990 by the Engineers' Club of Philadelphia and the Delaware Valley Engineering Societies, and has the distinction and honor of being the first awardee. Nominations for the Young Engineer award are made by engineering firms in the Delaware Valley, and the nominees must also have the endorsement of an engineering society. The candidates are judged on their contributions to engineering and their involvement in community service.

In 1987, Ms. Best was presented a Certificate of Appreciation for Special Service to SWE. This award was presented after she had served three years as Procedures Chair, during which time she prepared many of the procedures needed to implement the Society's new regional structure.

She has been honored by two of her employers, having received an Outstanding Achievement Award in Traffic Engineering from McCormick, Taylor & Associates in 1989 and the Presidents Award from Barton-Aschman Associates in 1981. Both awards were made in recognition of her outstanding work and contributions to the firms.

An active member of her church, her contributions were publicly acknowledged with the Temple Honor from Temple Lutheran Church in 1989.

While a graduate student at the California State University she was nominated by her professor for the Havenner Memorial Award in Transportation Engineering and was awarded this honor by the Automobile Club of Southern California in 1979.

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## Civic and Professional Service

### PROFESSIONAL AFFILIATIONS

#### **Institute of Transportation Engineers**

Member 1981 - present

##### Chicago Section

Program Committee, 1983

Director, 1984

##### Mid-Atlantic Section

Area Director, 1986-1987

Treasurer, 1988

Secretary, 1989

Second Vice President, 1990

First Vice President, 1991

President, 1992

District 2 Representative, 1993

##### District 2

Annual Meeting General Chair, 1993

Secretary/Treasurer, 1994

Vice President, 1995

President, 1996

ITE is the premiere technical organization for traffic and transportation engineers. Ms. Best has actively participated in this organization and has assumed leadership roles for more than a decade. She was a director of the Illinois Section in 1984 before moving to Philadelphia. She has served in all the offices of the MidAtlantic Section. Ms. Best served as secretary/treasurer of District 2, and is currently vice president and president-elect for the 900 member district. Additionally, she was the chair of the 1993 District 2 annual meeting.

#### **American Society of Civil Engineers**

Member, 1976-1984

Senior Member, 1989-present

#### **American Society of Highway Engineers**

Senior Member, 1986-present

#### **Delaware Valley Engineers Week Council**

Member, 1986-present

A member since 1986, Ms. Best is currently senior vice-chair, a position appointed by the Engineer of the Year, who chairs the Council. She has served as junior vice chair, director of the events committee and chaired the Proclamation Luncheon and tickets reservations for six years.

#### **Engineers Club of Philadelphia**

Member, 1987-present

Ms. Best became a member of the Engineers Club in 1987 and served on the special events committee from 1987-1988.

## CIVIC ASSOCIATIONS

### **Temple Lutheran Church**

Choir, 1984- present  
Worship Committee, 1985-1990  
Treasurer, 1986-present  
Congregation Council, 1986-1991  
Adult Sunday School Coordinator, 1987-1992  
Education Committee, 1989-1990  
Constitution Committee, 1993-present  
Handbell Choir, 1995-present

While Ms. Best has served her church in many capacities, she has been the treasurer of Temple Lutheran Church since 1986, overseeing a \$250,000 budget.

### **Haverford Township Affiliate of the Pennsylvania Association for Gifted Education (PAGE)**

Lynnewood Elementary School Representative, 1991-1994  
Treasurer, 1992-present  
NewsPages Editor, 1992-1994  
Middle School Representative, 1994-present

### **Boy Scouts of America**

Cub Pack 332, Havertown, PA 1990-present  
Treasurer, 1990-1994  
Newsletter editor, 1991-1993  
  
Boy Scout Troop 296, Havertown, PA, 1995-present  
Newsletter editor, 1995-present

### **Lutheran Church of the Resurrection, Niles IL, 1980-1984**

Choir, 1980-1984  
Treasurer, Lutheran Church Women, 1980-1984  
Congregation Church Council, 1981-1984  
Treasurer, 1983-1984

### **Morton Grove Traffic Safety Committee, Morton Grove IL, 1981-1984**

Chair, 1984

### **Northwestern Choral Society, Des Plaines IL, 1981-1983**