



ASCE

ILLINOIS SECTION

NEWSLETTER

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A Bold New Future: Trends Forecast

A Bold New Future, by Frank A. Stasiowski, was presented at the ASCE Management Specialty Conference held in Chicago this past April. Major excerpts are reprinted here for forecasting and contingency planning.

"During the past three years, design firms have overhauled their organizations more than any other time in history. Firms are being turned upside down as a result of market forces never before seen, and significant trends are emerging that must be noted. Below are 12 trends to help you reshape your firm's future.

Consultants from Practice Management Associates travel the world talking with design firms of every size, shape and philosophy. Change,

if not revolution, continues to be the key word for leading firms. Here are eight action items to act on today. Take them and start your own revolution. 1. All firms will have to be more accountable in 1995 and beyond. 2. Annual bonuses will increasingly give way to pay for performance. 3. Loyalty of an employee to a firm will all but disappear. 4. Outrageous client service will become the norm. 5. Every firm will develop multiple images. 6. Watch construction time shrink. 7. Expect rural locations for more small satellite offices. 8. Incentive, pay-as-you-go tax schemes will emerge as the new American way.

Reprints can be obtained from the author at Practice Management Associates, (617) 965-0055.

ILLINOIS SECTION NEWSLETTER

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Illinois Section — Zone III — District 8

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**Submission deadline
for the October Newsletter
is Sept. 12, 1995**

- 1. Work at Greater Distance.** Portable faxes, modems and faster airplanes, telecommunications, and wide-area networked CADD systems mean that talent is available at lightning speed any place on the planet. By the year 2000, any two-person design firm can do work anywhere. The only barrier will be the mental wall of disbelief that it can be done.
- 2. Everyone With Their Own CADD System.** CADD departments are dead. Computers are smaller and more powerful than ever before. Firms are networking everything and today's successful professional is a CADD designer. Watch for more prolific use of portable CADD and enhanced communication systems to emerge. At the same time, design firms will be more willing to make use of standardized details and assemblies to significantly improve productivity and lower costs.
- 3. Flatter Organizational Structures.** Firms are eliminating layer upon layer of management structure and pushing the responsibility of project performance into the hands of fully qualified project manager principals more than any time in history. Accompanying these flat organizations will be an unprecedented focus on quality management and personal accountability. Look for Total Quality Management to be the way business is done. Firms without significant investment in quality management processes will no longer compete in the mainstream.
- 4. A Shortage of Technical Professionals.** Unlike any time in the past, in 1995, design firms will face an incredible shortage of qualified, experienced

(continued on page 5)

New Technical Reference Available

The Illinois Natural Resources Conservation Service (NRCS), formerly the Soil Conservation Service, has recently developed the *Illinois Urban Manual: A Technical Manual Designed for Urban Ecosystem Protection and Enhancement*. The manual consists of over 1,000 pages and includes conservation practice standards, construction specifications, material specifications and standard drawings. Also included is a section evaluating the physical effects that specific practices have on soil, water, air, plant and animal resources. Contained in a three-ring binder, the manual will be expanded and revised as needs indicate.

Although the practice standards and associated materials describe best management practices for controlling urban nonpoint source water pollution, the scope of broad use includes soil erosion and sediment control, water management, fish and wildlife habitat improvement, visual and environmental quality and other significant applications. Municipalities, counties and local, state and federal resource agencies are encouraged to adopt this manual by reference in their guidance documents, ordinances or regulations.

The manual will be an invaluable technical reference for developers, planners, engineers, resource agencies and governmental officials involved in land use planning. Site development and natural resource protection or enhancement. It should be used as a companion document to the 1988 edition of *Illinois Procedures and Standards for Urban Soil Erosion and Sedimentation Control*, commonly known as the "Greenbook." Standards and specifications contained in the new *Illinois Urban Manual* replace Chapter 6 of the Greenbook and the 1987 Illinois Environmental Protection Agency's *Standards and Specifications for Soil Erosion and Sediment Control*.

To view or purchase a copy of the *Illinois Urban Manual* for \$76 plus handling, contact the Lake County Soil & Water Conservation District, 100 N. Atkinson Rd., Suite 102-A, Grayslake, IL 60030-7805, or phone (708) 223-1056. Contact your local Natural Resource Conservation Service, Soil and Water Conservation District or the NRCS Chicago Metro Urban and Community Assistance Office for further information on the *Illinois Urban Manual* and its applicability in your area.

Editor's Notes

1. All members who have not responded to the membership survey attached with the July/August newsletter are requested to do so immediately. If you need survey forms, please call me at (312) 368-3843.
2. The Illinois Section Directory is published every three years, with the latest volume expected to be published this fall. Any individual or company wishing to advertise in the directory should call John Schmidt at (708) 966-6011 before Sept. 15, 1995.

Editor's Notes

DESIGN ENGINEER

Geraghty & Miller, an international leader in the environmental services industry, has a challenging career opportunity for an experienced water/wastewater design engineer and/or groundwater remediation engineer to join our growing Chicago office.

In this position, you will be responsible for the evaluation and design of treatment processes for contaminated groundwater and industrial wastewaters. This will include process control design and implementation, preparation of design reports, detailed plans and specifications, stormwater analysis, runoff control design, and NPDES permitting.



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The ideal candidate will possess a Bachelor's degree in Civil or Environmental Engineering and at least five years of experience in environmental engineering or hazardous waste. A solid background in water, wastewater and/or groundwater remediation design engineering is essential. A PE is required. MS is preferred.

In return for your expertise, we offer an excellent salary, a comprehensive benefit package and an outstanding opportunity for career growth with a progressive, industry leader. If you are qualified and ready for the challenge we offer, please send your resume, including salary history, in confidence to:

Office Manager
Employment Code J9550
Geraghty & Miller, Inc.
35 East Wacker Drive, #1000
Chicago, IL 60601

Equal Opportunity Employer M/F/D/V

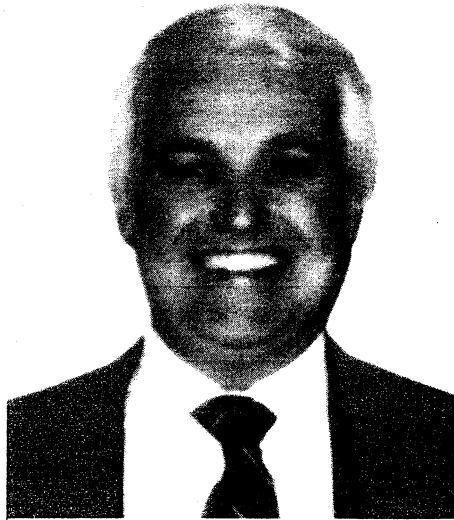
PRESIDENT'S NOTES

The civil engineer's professional and financial stature has been reported and debated over the years. We engineers do a lousy job of public relations regarding the value of our services and have continued to propagate to the point where the marketplace devalues our services faster than we can increase our efficiency. You can't buck the market trend. We also lament that we are ignored as a group. Our past president, Bill Macaitis, published an insightful article entitled, "The Art of Engineering," which described the engineer as being on a lower rung of the public's interest and admiration scale than professions that are more art and less structure. The higher the involvement or intrusion of regulation and procedure, the lower the level of public esteem.

I agree that too many standards diminish the role of the engineer and preclude the imaginative process required to qualify as art or engineering. Computer programs and artificial intelligence may be great for refining routine design, but can relegate engineering to a commodity when used by unimaginative or unknowing reviewers to measure the acceptability of a design by comparing it with a preprogrammed picture. The cost of many projects is higher than necessary because it is more advantageous for the owner to give in to bad design standard than to fight the system to attain approval of a reasonable design. The resolute engineer invites trouble by not following the "standard" practice. The unwary engineer of record who capitulates can end up with his seal on a design dictated by someone who may not be an engineer. What is the value of the professional engineer title in this instance?

I have preached for quite some time that engineering is the art of skimping; not merely to conform, but to create a lighter, cheaper, better product than the competition's without going over the line so as to allow failure. Obviously, this type of engineering can't be performed by the lowest bidder, who is more likely to be designing the pasting together of a collage of standards dictated by others, each with their own set of conditions and conservatism.

One management consultant starts



his training sessions by asking the attendees how to effectively ruin their businesses. This is not a typo — the verb is ruin, not run. Typical responses focus on acts that demonstrate a lack of caring for the customer's needs. He then leads the students to see how their businesses are perceived by customers. Let us consider this further by expanding "business" to "profession." We call ourselves a people-serving profession and our ultimate customer is the public, albeit indirectly in many cases. An efficient design reduces the operating costs, which makes the product or service more competitive and reduces the price to the public, no matter what the project or who the immediate client. Such a design is typically taken for granted and remains obscure. Conversely, bad designs aggravate and affect the public, are more reported by the media, and leave a lasting impression. The media sells to a public that loves putrescence and failure; therefore, there is typically no lack of coverage for sweetheart deals, cost overruns, and collapses during construction. To my way of thinking, this explains why you can get 50 media people to cover a KKK rally while I was unable to get any filmed media coverage for our national president visiting the 1994 national project of the year.

The public associates our profession with poorly maintained infrastructure, costly regulations, and other day-to-day aggravations. The government does its share to fuel the

fire. It provides two highway groups, one that reportedly values a driver's time at \$10 per hour when offering bonuses to contractors for early completion of road construction and another that forces the public to cough up huge sums of money in the increased cost of goods and services due to lost time from traffic jams and extra mileage to access and exit the system, in addition to the considerable tonnage of ground-up brakes, clutches and transmissions from the extra stops required to feed the toll boxes. The cost of compliance with environmental laws promulgated without regard to cost-benefit analysis or sound engineering principles is staggering.

The cause is bureaucracy, not engineering, you say? Doesn't matter. Every time we engineers hide behind, capitulate to, or are the bureaucracy, we give away a little of the very soul of the profession and become "go-fers" for the money changers and the power-hungry politicians while deluding ourselves into thinking that we are embattled professionals.

Bill Babcock

Short Course on Geologic Setting of Chicago Area

A short course on "The Geologic and Hydrogeologic Setting of the Chicago Area" will be held from 8:15 a.m. to 4 p.m. on Friday, Sept. 22, 1995. Sponsored by the North Central Section of the Association of Engineering Geologists, the course will be held at the Como Inn, 546 N. Milwaukee, Chicago.

Course segments and instructors include "Glacial and Postglacial Geology of the Chicago Area" by Ardith Hansel, ISGS; "Bedrock Geological Setting and Geotechnical Properties of N.E. Illinois" by Bob Bauer, ISGS; "Ground-Water Hydrology of the Chicago Area" by Adrian Visocky, ISWS; "History of Engineering Geology in Chicago" by Ted Maynard, Chicago DOT; and "Methods for the Description and Interpretation of Quaternary Sediments in N.E. Illinois" by Tim Kemmis, RUST E&I.

Cost is \$105 for ASCE or AEG members. Contact Jim Davis at (708) 605-3433 for registration details.



Join the Engineering Team of the Future!

Participate in the 1996 National Engineers Week Future City Competition™

You're invited to mentor a team of 7th- and 8th- grade students engineering cities of the future in the fourth annual National Engineers Week Future City Competition™. You'll help students and their teacher design a city by computer and then build a model for participation in local and national competitions. You'll help your team's school win prizes and maybe even a trip to Washington D.C. during National Engineers Week 1996, February 18 - 24. You and your employer will be recognized for your commitment to improving math and science education.

The local National Engineers Week Future City Competition™ begins in September 1995, and runs through January 1996. Volunteer registrations are being accepted now. If you are interested in becoming a volunteer or would like more information, please contact your local coordinator.

Sponsored by the National Engineers Week Committee
1420 King Street, Alexandria, VA 22314
(703)684-2852; <eweek@nspe.org>

1996 National Engineers Week Future City Competition™ Illinois

- I am interested in becoming a volunteer
 I would like more information

Name: _____

Company: _____

Address: _____

Phone: _____ Fax: _____

Mail to: Annie Wong or Chris Rops
Fluor Daniel, Inc. The HNTB Companies
200 West Monroe Street 111 North Canal, #880
Chicago, IL 60606 Chicago, IL 60606

For More Information on the 1996 Illinois National
Engineers Week Future City Competition™, contact:

Annie Wong or
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200 West Monroe Street
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(312) 368-3755
FAX (312) 368-3746

Chris Rops
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111 North Canal, #880
Chicago, IL 60606
(312) 930-9119
FAX (312) 930-9063

National Engineers Week 1996
Future City Competition™

IS-ASCE's First Golf Outing a Success!



The Illinois Section ASCE's first golf outing was a resounding success. Golfers enjoyed beautiful weather, a well-kept Gleneagles golf course, refreshments, lunch, prizes, and some golfers even enjoyed the round of golf. The golf outing was a best-shot format with teams of four. This year's winning group was Jim

McLean, Michael Van Swol, Pat Nosal and K.C. Forman, all from Fluor Daniel, with a score of 60 (10 under par).

The golf outing proceeds benefited the IS-ASCE minority student program. The program sends minority high school students to a three-week engineering camp at Notre



Dame University. At the camp, the students are given a taste of engineering, computers and college life. Hopefully, everyone enjoyed the golf and will help support the minority student program again at next year's outing.

A Bold New Future: Trends Forecast

(Continued from page 1)

- people. The economy is pulling out of the recession at the same that demographic trends indicate fewer 18-34 year-olds in the population. In 1995, when the economy is steaming, design firms will compete ferociously to attract a shrinking number of highly qualified people. Bidding wars could develop during salary negotiations.
- 5. Everyone Selling Everything.** The term "Marketing Department" no longer applies to design firms. Everyone will be a marketer, coached by a director whose principal responsibility is to train everyone in the firm in all aspects of marketing and selling. The key task will be to develop project managers as the key, front-line marketers.
 - 6. Owners as Project Managers.** Clients are demanding and getting a higher level of accountability on every project. Due to this demand, owners of design firms will more and more be asked to be the project managers. As owners take on more responsibility, firms will necessarily become smaller. At the same time, aggressive design professionals will begin to offer guarantees of performance on their work.
 - 7. Shorter Life Spans for Design Firms.** The traditional concept of a firm's name living on in infamy is nearly dead. Firms will emerge, grow and disappear in five-year cycles. Chief executives or managing partners will have a useful life in their role of three to five years maximum. Continual change and evolution in the firm and its leadership will be forced by the need to respond faster than ever to changing client needs and market conditions.
 - 8. Pay-For-Performance Systems.** By the year 2000, annual bonuses will be gone as firms seek to develop performance-based compensation systems, which tie rewards to the time of specific, exceptional performance. Also, expect there to be no salary raises in the future on a cost-of-living basis. Instead, people will be given spot bonuses for instant performance.
 - 9. Continual Re-training of Everyone.** Every three years, everyone will become obsolete unless they are continually re-trained to use new techniques, new human interaction skills, and new technical skills in their function. Every firm will increase its commitment to training from the current one percent of gross fees to as much as five percent of gross fees.
 - 10. Part-Time Everything.** Design firms made up of full-time employees no longer exist as the only option. Look for a variety of part-time and contract employees and fully implemented flex-time hours to be the dominant way of doing work. Also, look for continual reductions in overhead staff as everyone learns to type, voice recognition emerges, and faxes replace telephones in a do-it-yourself environment.
 - 11. Distributed Ownership.** Successful firms will recognize the difference between leadership and ownership. Most firms will distribute ownership to more employees with a view that ownership is capitalization. The emerging focus is on "who is leading the firm" as firms evolve from traditional post-World War II concepts of ownership to more prolific, next-century, broad-based ownership.
 - 12. Smorgasbord Fringe Benefits — The Norm.** Look for every employee to have their own independent fringe benefit package by the year 2000 in response to differing demands on individuals. Some will need day care, some will need flex-time, most will need health care, some will want free time without compensation, but all will demand to be treated as individuals.

SECTION ACTIVITIES

Structural Branch

The Illinois Section, Structural Branch, will hold a joint meeting with the Transportation Branch on Sept. 13. The meeting will include Bob York of the South Suburban Airport and will discuss the latest developments in the proposed Peotone airport. Mr. York will give an overview of the largest infrastructure project ever undertaken by the State of Illinois.

Date: Wednesday, Sept. 13, 1995

Time: 11:30 a.m. cash bar
12:00 p.m. lunch

Place: The Tower Club
Civil Opera House, 39th floor
20 N. Wacker, Chicago

Cost: \$23

RSVP: Steve Mikottis at (312) 707-8770

Associate Member Forum

Our annual planning meeting for the upcoming year will be held on Thursday, Sept. 21, 1995 at HNTB, 111 N. Canal St., Chicago. Please, come join us and become more involved. We had a great year with many accomplishments and look forward to planning another fun and successful year. For information, contact Barry Erlandson at HNTB, (312) 930-9119.

Urban Planning & Development Division

Upcoming Programs

A Project Funding Seminar is scheduled for November. Speakers from various public funding agencies will offer guidelines for seeking aid for projects.

Date: Nov. 9, 1995

Career Day for College Seniors

Date: Nov. 17, 1995

Division Meetings

Division meetings are held every third Thursday of the month.

Date: Sept. 21, 1995

Time: 8:15 a.m.

Place: Denny's Restaurant
Oakbrook Terrace, Illinois

Management Division

For information on the division or its activities, contact Bob Iverson at (312) 454-1060.

Administration Committee Meeting

Date: Sept. 21, 1995

Time: 5:30 p.m.

Place: Collins Engineers Inc.
165 N. Canal St., Suite 975
Chicago

In-House ASCE Seminars

The division announces 19 engineering process seminars at substantial fee reduction when held at your company. These presentations are facilitated by ASCE National and its *Management Division* who contract with speakers and make arrangements. Three new seminar titles are: *Confined Space Safety*, *Dealing with OSHA's new regulations*; *Public Works Infrastructure Management and Planning*; and *How to Effectively Control Construction Costs*.

For general information or to order the ASCE Professional Development Calendar (CAL 17), contact Member Services at (800) 548-2723. To discuss booking a specific management seminar, contact Cathy Teban at (800) 548-2723, ext. 7268.

Six-Sentence Marketing Plan

STEP 6—WORK OUT A BUDGET
You can price your marketing budget the same way you would a building project, starting with a particular budget, say 5% to 10% of gross sales, and then working out what you can do within that budget. Or you can start with the marketing activities that you want to carry out and figure what it will cost. Or you can start with what you spent last year and either keep it the same or change it. Example: 8% of projected gross revenue will be designated for marketing.

Congratulations

Congratulations to Richard A. Walther for being selected by the Professional Activities Committee as a recipient of the 1995 Edmund Friedman Young Engineer Award for Professional Achievement. The award will be presented Oct. 15, 1995 in San Diego, California.

Transportation Division Achievement Award to Richard Hocking



On June 27, 1995, the Transportation Division presented its Lifetime Achievement Award to Richard J. Hocking, P.E., Vice President of Barton - Aschman Associates, Inc. The event was held at the Como Inn in Chicago. The Lifetime Achievement Award consisted of an elegant plaque and a \$250 donation to a charity or institution selected by the recipient. Mr. Hocking selected Concordia University as the recipient of the donation.

This year, Dick Hocking will celebrate his 30th anniversary with Barton - Aschman. He is a registered professional engineer in six states and has been a member of ASCE for many years. He has managed elements of projects such as the Elgin-O'Hare Expressway preliminary design and EIS, The Chicago Central Area Circulator, the reconfiguration of the I-94/I-894 (Zoo) interchange west of Milwaukee. Dick has provided the transportation component for regional and countywide plans for McHenry, DuPage and Will counties. Though he is justifiably respected for his highway work, he is also a strong proponent of public transportation, as evidenced by transit projects he has managed in Chicago, Milwaukee and Dallas-Ft. Worth.

Because of Dick's accomplishments and dedication to the civil engineering profession, the Transportation Division honors and recognizes him by presenting him with the Division's Lifetime Achievement Award.

