

September/October 2000

VOLUME 16

NUMBER 5


# Facilities Manager

The official publication of APFA: The Association of Higher Education Facilities Officers

## A Profile of President John Harrod

*Special Theme Issue*  
**Grounds Management**

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**APPA President  
John Harrod**

Photo by Jeff Miller

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**Facilities Manager** (ISSN 0882-7249) is published six times a year (January, March, May, July, September, and November). Editorial contributions are welcome and should be sent to the address below.

Of APPA's annual membership dues, \$40 pays for the subscription to **Facilities Manager**. Additional annual subscriptions cost \$66 for APPA members, \$120 for non-members. For information on rates and deadlines for display advertising, telephone 847-562-8633 or 703-684-1446 ext. 238.

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**POSTMASTER:** Send address changes to Facilities Manager, 1643 Prince Street, Alexandria, VA 22314-2818.

**Published by APPA:**  
The Association of Higher  
Education Facilities Officers  
1643 Prince Street  
Alexandria, VA 22314-2818

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### School Name Updates

The following institutions recently announced new names:

- Fremont-Newark Community College (CA) is now **Ohlone College**
- Quinnipiac College (CT) is now **Quinnipiac University**
- Siena Heights College (MI) is now **Siena Heights University**.

### Correction

Dear Editor:

Thank you for the wonderful article "Improving Indoor Air Quality in St. Cloud Schools" in the July/August 2000 issue of *Facilities Manager*. We at the Clean Air Group have been working with St. Cloud Schools for over two years and eagerly read your article, finding a meaningful error on page 58, in the first paragraph of the second column. The sentence as published reads, "Our next big challenge, which we are not doing, is to communicate the policy and administrative procedures directly to each faculty member and ensure they are being followed." The "not" is incorrect. In fact, we have spent and continue to spend considerable time and effort to communicate the new IAQ policy and accompanying administrative procedures to faculty, parents, school board members, and the community.

**Barbara Thatcher**

*Vice President, Clean Air Group*



**T**he Institute for Facilities Management, an APPA program aimed at providing a superior education in the core areas of facilities management, has several upcoming meetings scheduled for facilities managers to improve their professional abilities.

From January 28-February 1, 2001, the Institute will meet in Newport Beach, California; September 16-20, 2001, in Scottsdale, Arizona; January 13-19, 2002 in Tampa, Florida; and September 8-12, 2002 in Norfolk, Virginia.

The Institute offers a diverse range of classes that provide both the in-depth technical knowledge and the

broad-based visionary skills that today's facilities professional needs in order to succeed. Visit APPA on the Web at [www.appa.org/education/institute](http://www.appa.org/education/institute) for more information.

**Call for Presentations.** APPA's Education Committee is seeking papers for the 2001 Educational Conference & 88th Annual Meeting that examine aspects of new creative strategies in the world of higher education and facilities management. The deadline for presentation proposals for next year's annual meeting in Montreal, is October 6, 2000. Proposals should focus on strategic and leadership issues, have relevance to the theme

"Moving Beyond Boundaries," have audience appeal, and be of a superior quality. Presentations may come in one of three formats: Lectures, Collaborative Learning Labs, or Provocateur Panels. Contact APPA for an application or visit the website at [www.appa.org](http://www.appa.org) for more information.

**The Leadership Academy.** It's not too early to start thinking about next summer's Professional Leadership Center Leadership Academy in Fort Lauderdale, Florida. The meeting will take place from June 17-21, 2001. The Leadership Academy is designed to serve those individuals with a desire to lead. The Academy offers three



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tracks, each emphasizing a different perspective and type of leadership skill. Track I features individual effectiveness skills, Track II organizational leadership skills, and Track III professional leadership skills. APPA's Professional Leadership Center is dedicated to preparing facilities and administration professionals to rise to a new level of leadership.

APPA has built the Professional Leadership Center on three cornerstones necessary to leadership development: Education, Research, and Recognition. If enhancing your leadership abilities is your goal, then the Leadership Academy is the right place to start. For further information on the Leadership Academy, go to [www.appa.org/education/plc/academy](http://www.appa.org/education/plc/academy).

**Award for Excellence.** Applications for this year's Award for Excellence are now being accepted until January 15, 2001. The APPA Award for Excel-

lence is designed to recognize and advance excellence in the field of educational facilities. It is the highest institutional honor bestowed by APPA and provides educational institutions the opportunity for national and international recognition for their outstanding achievements in facilities management.

The criteria for this year's award have been updated to encourage a systems perspective of facilities operations as a critical contributor to the overall institution and vision. Since successful management of the overall facilities enterprise requires synthesis and alignment of the organization's various components, successful award applicants will be those who demonstrate ability to look at the organization as a whole. The Award winner will be someone who understands the key linkages within the organization and gives them a greater coherence, with the goal of

improving overall performance and satisfying customers.

The Award for Excellence application is available at [www.appa.org/excellence](http://www.appa.org/excellence).

## First Energy Star School Districts Announced

**N**ine U.S. school districts were the first to earn the Department of Energy and Environmental Protection Agency's Energy Star label this past June at the 11th Annual Energy Efficiency Forum in Washington, D.C.

The nine winning school districts, totaling 150 schools, were San Diego Unified School District (CA); Academy School District 20 and Boulder Valley Public Schools (CO); New Haven Public Schools (CT); Kansas City Public Schools (KS); Columbia Public Schools (MO); McAllen Independent School District (TX); Milwaukee Public Schools (WI); and Marion Public Schools (WV).

To earn the Energy Star label, a school district must be operating at an energy performance level in the top 25 percent of their peer group.

Besides awarding the Energy Star label, the DOE and EPA are trying to help schools make the improvements to earn the label. The EnergySmart Schools campaign, sponsored by the DOE, provides resources and technical assistance for energy improvements, financing, and student learning activities. The department is awarding \$4.7 million this year in federal funds to the EnergySmart Schools campaign, and these funds will be matched by the states, providing a total of \$9.4 million to school districts to bring down energy costs and improve efficiency in energy use.

According to Assistant Secretary of the DOE Dan Reicher, poor performing schools use almost four times as much energy per square foot as the best schools, and these inefficient

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Continued from page 4

schools amount to approximately one-third of the nation's 86,000 K-12 schools. They are spending an unnecessarily large portion of their budgets on energy, more than on textbooks and computers combined. These schools have inadequate lighting, leaky windows, old heating and cooling systems that fail to stay within the comfort zone, and it will take about \$112 billion to bring them up to date, says Reicher.

EPA Deputy Administrator Mike McCabe said at the Forum, "If every school in the nation that could do so profitably upgraded to the Energy Star level, we would reduce carbon emissions by over seven million metric tons of carbon equivalent, the equivalent to preventing pollution from six million cars. This could save the nation's schools, and the communities that pay for them, over \$1.5 billion every year in reduced energy costs."

To earn the Energy Star label, McCabe says there is an easy method.

The EPA website has an online energy performance rating system for schools and other buildings. This benchmarking tool allows building managers to evaluate the building's energy performance on a scale of 0 to 100. A score of 75 or better (in the top 25 percent of most efficient schools nationwide), as well as meeting targets for healthy indoor air quality will qualify the building for the Energy Star mark. McCabe says, "A school does not have to be rebuilt from the ground up to take advantage of the Energy Star label. Today's energy-efficient technologies for lighting, heating, and air conditioning equipment can often be installed in place of older, outdated equipment. For many schools, switching to the new, clean technologies can be done at no additional cost—because the energy savings pay for the equipment."

More than just energy efficient schools were discussed at the Energy Efficiency Forum. Congressman Sherwood Boehlert (R-NY), who was

honored at the Forum, said in his acceptance speech, "Industry is paying attention to energy efficiency, and the existence of this Forum is a testament to that, although more can always be done. But the public at large seems largely, even increasingly, oblivious to the issue, and like so many other failures of citizenship, that obliviousness seems to be magnified in the Congress."

Energy policy challenges for the next administration were a major consideration. Both DOE Secretary Bill Richardson and Senate Energy & Natural Resources Committee Chairman Frank Murkowski addressed the pressing issues and laid out plans for dealing with them. Senator Murkowski (R-AK) proposed that "the real challenge for the next Administration is to... encourage a balanced portfolio of energy options that are stable, secure, and affordable for all Americans, while minimizing their impacts on our local and global environment."

## APPA Award for Excellence Bestowed upon Duke and USC

APPA's Award for Excellence in Facilities Management is the highest honor granted by the association, recognizing educational institutions whose facilities management departments demonstrate

excellence in overall operations and effectiveness. This year's award goes to two universities—Duke University and the University of Southern California. Higher education institutions

are evaluated in two ways: a self-evaluation addressing specific, stringent criteria, and a site visit by a member of APPA's Professional Affairs Committee to confirm the accuracy of the self-assessment. Applying for the award is a challenge; it requires the facilities staff to be committed to working cohesively as a team and superior levels of leadership among management.

**Jerry Black,  
Duke  
University**



excellence in overall operations and effectiveness. This year's award goes to two universities—Duke University and the University of Southern California. Higher education institutions



**Thomas Moran and Maurice  
Hollman, University of Southern  
California, with Maggie Kinnaman**

Immediate Past President Maggie Kinnaman, who presented the two schools with their awards at APPA's Annual Meeting in July, cited Duke's "commitment to environmental stewardship" and "their success with their SMART facilities renewal program" as two examples of their excellent facilities management performance. Handing the award to USC, Kinnaman credited the university "with its diverse workplace, its completely transformed work processes and practices, and its employee-led emphasis on quality and customer service."

Since the first Awards for Excellence were presented in 1988 to Brigham Young University and the Medical College of Georgia, only 21 institutions have been recognized with the Award, making it a prized and respected honor.

Photo by Rhonda Hale



## New ETS Report Tells of Large Increases of College Students

The Educational Testing Service recently issued a new report, *Crossing the Great Divide: Can We Achieve Equity When Generation Y Goes to College?*, which discusses future projections for the number of undergraduate students in the year 2015. The 103-page report includes data on both state and national school population courses, focusing on the levels of minority students then and now. Two ETS researchers, Vice President for Public Leadership Anthony P. Carnevale and Senior Economist Richard Fry, are the authors of the report. The goal of ETS in creating this document was to work toward ensuring that youth and adults of all racial and ethnic backgrounds can obtain undergraduate learning.

Some of the report's findings include the following:

- A projected 2.6 million new students will be in college by 2015, 80% of which will be minorities. This will bring the total minority percentage up to 37.2% from its 1995 levels of 29.4%.
- The percentage African-American and Hispanic students (18-24) will still be smaller than their proportions in the overall 18-24 year-old U.S. population.
- California, Hawaii, New Mexico, and the District of Columbia will see the minority college population exceed that of White students. In Texas, the ratio of minority to non-minority students will be about even.
- Rising immigration is also boosting campus populations. Between 1950-80, America averaged 450,000 immigrants a year; after 1980 the average was 800,000. By 2010, approximately 22% of school-age youth will be children of immigrants.

- Older students (35 years +) returning to school while on sabbaticals or in mid-career education will increase to about 31% of the 2.6 million new students in 2015.
- While the White student population will rise from 9.5 to 10 million, the percentage will drop from 70.6 to 62.8%. In some states—New York, Ohio, Pennsylvania, Kentucky, Michigan, Iowa, Mississippi, New Jersey, Rhode Island, and West Virginia—even the number of White students will drop.

The authors identify four "wild cards" that may affect the survey's predictions: 1) tuition increases, 2) labor market returns/financial returns from a college degree, 3) parental background, and 4) size of youth cohort; young people born during periods of high birth numbers are less likely to go to college.

While the report is positive about the increase in minorities attending colleges and universities, it stresses that the coming increase still will not equalize the proportions of minorities in higher education to the U.S. minority population. The report concludes by offering reasons to work toward a greater equality of student population in higher education, and then is followed by appendices of methodology and state by state student enrollment data.

To receive a free copy of the report, call ETS at 609-734-1200.

## Designing the 21st Century Schoolhouse

The College of Education at San Diego State University has formed a partnership with leading architectural firms to create the National Center for the 21st Century Schoolhouse. The center, located on the SDSU campus, will be used as a resource for school administrators, policymakers, and design professionals to research contemporary trends

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and methods in school design and construction. Dr. Duane Hutton, executive director of America's Schoolhouse Council, a group of seven architectural firms and a partner in the new center, says, "What's been missing in the national debate over educational reform is a focused discussion of the interrelationship between educational programming and school design." According to Hutton, this new center is important because among the issues raised in the current education debate is a need for improved classroom design to accommodate new modes of learning, ones that incorporate both smaller spaces for hands-on learning and technological advancements, such as Internet access. Also under discussion are issues like improved safety measures.

The center will house a wealth of information on school construction programs occurring throughout the

country, so that various officials in planning stages can research ideas, learn what has worked in the past and what hasn't, and build on knowledge gained from previous school building projects.

The center has over \$750,000 in start-up funds to operate over the next three years; \$500,000 has come from America's Schoolhouse Council, and the remainder from the California State University. Additional funding will come from grants and other private sources, and program revenue. As the home of the center, SDSU will provide necessary administrative and operational support.

Lionel R. Meno, dean of SDSU's College of Education, reports that the center's four primary goals for its first year of operation are: 1) communicating with educators nationwide to make certain they are aware of the resources now available; 2) creating a

database with national statistics/information on educational programming, school facilities, and school financing; 3) hosting national forums on critical educational programs/school facility issues; and 4) offering extension services that work directly with school districts that need a new school in which consultants from the center will facilitate the planning process from the inception through financing and construction.

Meno says, "This research will allow educators and others to avoid having to reinvent the wheel when it comes to designing a new facility. Since most [educators] typically have little to no experience in facility design, they will be able to benefit from the resources available, and the result will be better designs that reflect the latest thinking on educational methods to be used over the next 20 to 30 years." ■

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# Fort Worth Highlights

## Banquet Speaker Roger Staubach



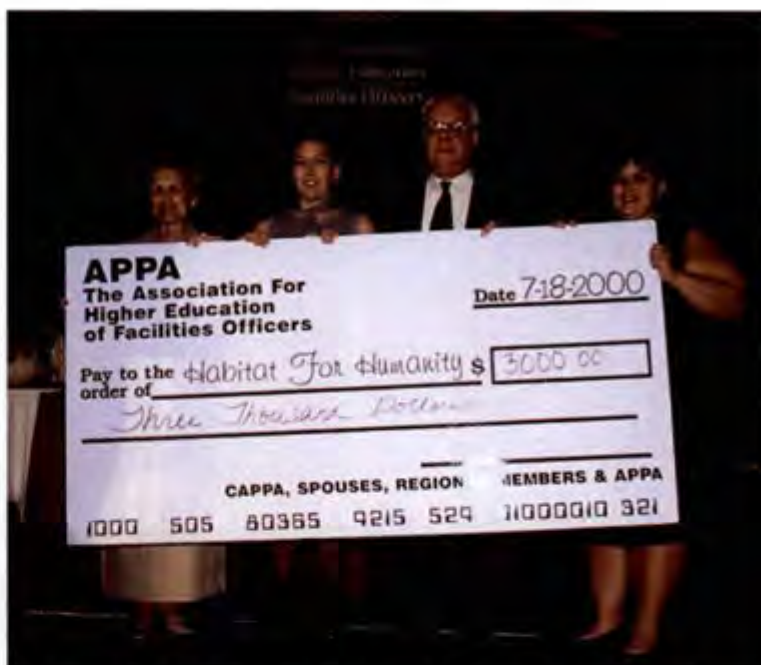
*Gregory Lernihan, senior vice president of Siemens Building Technologies, introduces banquet speaker Roger Staubach. Siemens sponsored Staubach's presentation.*



*Football Hall-of-Famer Roger Staubach discusses the value of teamwork and vision.*



*Staubach prepares to throw a signed football to one of three lucky raffle winners.*



*The CAPPRA raffle to benefit Habitat for Humanity raised \$3,000 from generous APPA members. The amount raised was instantly matched by The Staubach Company. Special thanks to Margaret Pellek and all the CAPPRA spouses who organized the raffle. From left, Margaret Pellek, a Habitat for Humanity representative, Jack Pellek, and Andria Krug.*

# Fort Worth Highlights

## Michael Hawley & Cowboy Poet Baxter Black



*Michael Hawley of the MIT Media Lab speaks of technology and the heart in his keynote address. Thanks to CMD Group for their sponsorship of this presentation.*



*Cowboy Poet Baxter Black regales APPA with stories of a runaway dog, the consequences of truck washing, and other western peculiarities.*





# Fort Worth Highlights

## Awards & Recognition



Incoming President John Harrod urges members to collect the business cards of new friends and colleagues during the annual meeting.



President Maggie Kinnaman honors outgoing Senior Board Representatives; from left, Joe Kish, Chris Christofferson, Bob Bertram, Maurice Mathewson, Mike Reuck, Mike Besspiata, and Wayne White.



The President's Award was given to the SAM Task Force; from left, Dave Riddell, Laura Long, Tom Harkenrider, Larry Givens, David Cain, Steve Glazner, Don Briselden, and Maggie Kinnaman; not pictured is Doug Christensen. The President's Award was also given to the PLC Advisory Council: Doug Christensen, Bill Daigneau, Jack Hug, and Pete van der Have.



The 2000 Pacesetter Award recipients were, from left, Ted Weidner, Randy Turpin, Carol Trexler, Don Hufford (accepted by Bob Snip), Brian Fenn (accepted by Maurice Mathewson), David Cain, and Don Briselden.



Hod Wells, Bob Getz, and Chris Christofferson were the 2000 recipients of the Meritorious Service Award, APPA's highest individual honor.



The 2000-01 APPA Board of Directors is sworn in during the annual banquet.



# Fort Worth Highlights



*The Annual Meeting Welcome Committee led by Willet Stallworth and Kevin & Stephanie Folsom certainly provided a warm welcome to Fort Worth, where the daily temperatures averaged 105°F.*



*Several Past APPA Presidents joined us in Fort Worth; from left, Bill Whitman, Herb Collier, Joe Spoonemore, H.C. Lott, Don Mackel, and Charlie Jenkins.*



*Joe Spoonemore and Toivo Vainiotalo confer during a reception.*



*Maggie Kinnaman thanks Toivo Vainiotalo (from Finland) and other international guests for traveling to the APPA annual meeting.*



*APPA staffers Cotrenia Aytch, Maxine Mauldin, and Stephanie Legette enjoy a moment off their feet.*

This Page: Stallworth photo by Rhonda Hole; all others by Ron Medlin



# Fort Worth Highlights



*A member reviews APPA's new strategic initiatives during the business meeting.*



*A member tries his hand at the Lerch-Bates putting green in the Hall of Resources.*



*Joe Rubertone and Bob Carter share a joke.*



*Jim Delbridge and Bernie Gaudi of Cutler-Hammer.*

# Fort Worth Highlights

Photo by Steve Glazner



*Members Dave Petersen, Ed Smith, Joe Bolton, Harold Galloway, and Bill Kolster enjoy the Welcome Party.*



*APPA staff members Lander Medlin and Chong-Hie Choi received surprise honors from President Maggie Kinnaman.*

Photo by Steve Glazner



*Ron Calloway, Phil Waier, and Eric Ness relax between education sessions.*

Photo by Ron Medlin



*Board members Wayne White and Phil Cox having entirely too much fun.*



# Fort Worth Highlights

## Individual Business Partner Awards



*Jim Payne of Nalco, Bill Bell of Lerch-Bates, and Bernie Gaudi of Cutler-Hammer received APPA's Eagle Award, given to individuals who have been advocates at their respective firms for a stronger partnership with APPA. Lee Newman of Ceramic Cooling Towers was awarded posthumously.*



*APPA presented Business Partner Leader Awards to individuals who continue to support and assist the association: from left, Matt Adams of the Adams Consulting Group, Steve Spiwak of Nalco Chemical, and Ron Thompson of Cutler-Hammer.*



# Fort Worth Highlights

## Business Partner Awards

### *Platinum Award*



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Cutler-Hammer

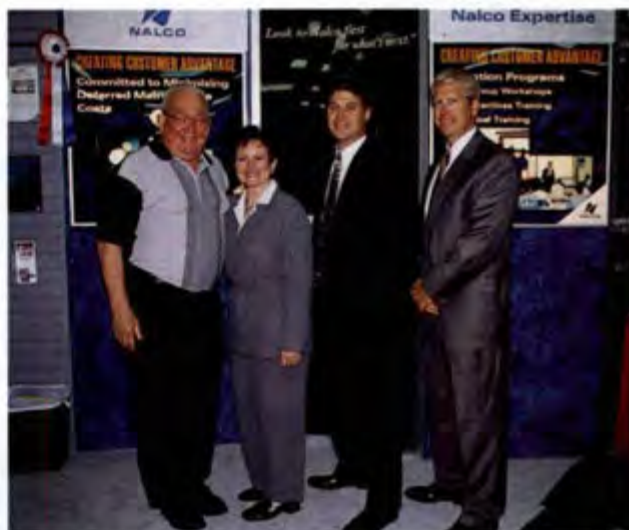
Photo by Steve Glazner



DOE/Rebuild America



Sodexo Marriott Services



Nalco Chemical Company



# Fort Worth Highlights

## Business Partner Awards

### *Gold Award*



*AssetWorks*



*Johnson Controls, Inc.*



*Milliken & Company*



*ServiceMaster*

*Also receiving Gold Awards were Oracle, Siemens Building Technologies-Landis Division, and Tremco.*

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Photo by Steve Glazner





# Fort Worth Highlights

**Fort Worth's Bank**  
One building lost nearly 3,000 of its 3,300 windows in the March 2000 tornado; most are still covered by plywood, awaiting replacements. The building continues to be occupied by its tenants.

Photo by Steve Glazner



*Maggie and John Kinnaman pose with longhorn steer Shiloh, the featured attraction at the Johnson Controls Welcome Party.*



*Members network between sessions.*



*Gilles Rousseau invites APPA to Montreal for the 2001 Educational Conference & 88th Annual Meeting.*

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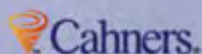


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# Executive Summary

## Enriching Your Personal Development

by E. Lander Medlin

**Having just** returned at this writing from APPA's Educational Conference in Fort Worth, I have been "spurred" on by the renewal that comes from both an acknowledgment and a reinforcement of some continuing themes—technological innovation and creativity, the value of humor and a lighthearted spirit, and leadership through teamwork. Those who attended are boasting about the incredible experience they had with all aspects of the program, activities, and people who participated this year. They renewed old friendships, made new acquaintances, were stimulated by the educational offerings, and engaged our business partners in the Hall of Resources. For those who did not have the pleasure of attending, I would like to share some thoughts about the messages from our general session speakers.

First, our opening keynote speaker, Dr. Michael Hawley of MIT's Media Lab, artfully wove together the importance of "high tech and high touch." On the one hand, funny and light; on the other hand, deeply profound in the way he connected the importance of the heart and its continuous and seamless interplay with technology. He stressed that no matter how much technology transforms the way we live, the focus will be on our personal involvement as human beings who need to be touched, nurtured—and yes, loved—toward the improvement of our quality of life.

As creativity and innovation are the foundation of technological advancement, creativity can only be expressed

**Lander Medlin is APPA's executive vice president. She can be contacted at [lander@appa.org](mailto:lander@appa.org).**

Photos by Rhonda Hile



**Clockwise from top: Michael Hawley, Baxter Black, and Roger Staubach.**

in an environment that is unbridled from excessive structure, dogma, and fear. In fact, Hawley astounded us by describing the importance of a grand piano that sits within the MIT Media Lab offices. A piano, invented centuries ago, would seem incongruent with the high-tech world of the 21st century. However, for Hawley, it is an essential component in fostering creativity and innovation.

Then Baxter Black, the renowned cowboy poet—the Will Rogers of our time—amused us to the point of hysteria as he recounted one true story after the next through the use of poetic verse. Having been a large animal veterinarian in the western United States, and his father the dean of agriculture at New Mexico State University, Black skillfully used his

animal/cowboy experiences to help us all gain a healthy and humorous perspective on the absurdities of our present times. He emphasized that if we would only look at life's encounters with less seriousness of mind and more of a twinkle in our eye, we would live happier, healthier, more productive lives.

And finally, Roger Staubach, one of the most famous and revered football quarterbacks of our time, humbly focused his remarks not on himself or his own super stardom, but on the exceptional efforts of each and every one of his teammates. In other words, he emphasized the extreme value and importance of teamwork not only in a sports competition but in the accomplishment of our work at our institutions and in our companies and businesses. Yes indeed, given what we do on behalf of our educational institutions, we are in the Super Bowl everyday! So where are you on the team?

Ultimately, all these speakers share one thing in common: they are asking us to reassess our view of this rapidly, dramatically changing world in light of, and even more importantly in spite of, technology! We are *not* institutions *nor* organizations *nor* departments. We are bodies of people—human beings who need love and unbridled creativity—a human touch; humor and a lightness of heart in our everyday lives; and a team spirit replete with collaboration and cooperation.

We cannot approach our work and our professions with a "business as usual" attitude. It is a new world, full of new challenges and new opportunities. As eloquently stated in the Gospel of Mark (9:17): "Men should not put new wine into old skins; else the skins break, and the wine runneth



out, and the skins perish; but if they put new wine into new skins, both are preserved." Information technology is the new wine of this age. Therefore, we must reinvent ourselves, our organizations, and our institutions to create palatable new skins to preserve the profession and that of the academy. Everything points to the necessity of changing our approach to and delivery of educational facilities management. Finally, our speakers reverberated an answer that is a simple but familiar refrain, one that I continue to hear no matter where I go, who I hear speak, or what I read: "Leadership for this new information age is essential!"

Now, do we just leave this well-founded understanding, spirit, and enthusiasm in Fort Worth and/or wait until next year in Montreal to be spoonfed again? How can we contin-

ue to live this out at our institutions, with our staff, and in our personal lives? What will sustain us throughout the year? How do we transmit these teachings and new understanding to achieve success for ourselves, our organizations, our institutions, our association, and the field of education? What are the steps we need to take?

Frankly, the next steps are simple to say but extremely difficult to do! We must set the example/model the way through our own leadership development—individually, organizationally, and professionally—and find ways to contribute to the body of research that will form our industry. I cannot underestimate the importance of each individual taking personal responsibility for the professional development of their leadership skills. Nor can I overemphasize the impor-

tance of leadership in and for the industry by focusing on research and increasing the body of knowledge of the educational facilities profession. As leaders we must move our thinking beyond just the technical skills and proficiencies of the management of our profession, to such leadership competencies as:

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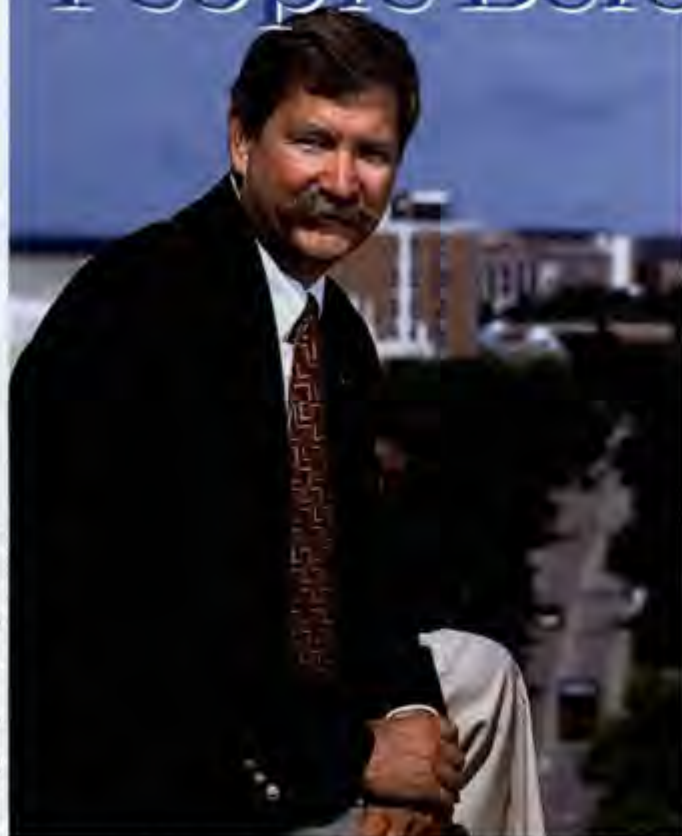
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# People Before Buildings:

## A Profile of John Harrod

By Alan Dessoiff



Photos by Jeffrey Miller, except as indicated

**John Harrod has been at the University of Wisconsin-Madison since 1991**

John Harrod believes that relating well to other people is as important as anything else a higher education facilities manager does. "Our business is taking care of facilities, but our true assets are the people we work with who take care of those facilities," says Harrod, director of physical plant at the University of Wisconsin-Madison and APPA's current President.

"We need to look at both assets," Harrod says, and that means within APPA as well as on college and university campuses. That underscores the agenda he has developed as the association's President. He calls it "the personal touch," and he intends to emphasize it in enhanced communication between APPA and its members to ensure that their membership is "of value" to them.

"There's a real interest and need for members to feel that they are in touch with those who guide and direct the organization, so the personal touch is critical. E-mails don't always do it and written publications don't do it. Members need to

know that there is a face behind a name, a personality behind that face, someone who really cares about them. That personal touch is what makes the organization strong," Harrod asserts.

Understanding members' experiences and interests also will help APPA address issues of concern to them in their jobs, Harrod says. In a field governed significantly by legislative, regulatory, and political developments, "the challenge is trying to find out what's going to change next, to anticipate what's coming down the pike," he says.

Environmental issues is one area that demands continued focus. "The PCBs are behind us, but asbestos remains a threat. We know about underground storage tanks and air quality, but we don't know what's going to happen next. Will the federal government prohibit coal burning in our heating plants? That has been looming out there," Harrod says.

The impact of technology on campus operations is another area of concern. "The challenge is that everybody wants information now, but being able to make it available sometimes is difficult. The support systems aren't necessarily in place to provide the data that people want. That causes anxiety for our customers," Harrod says. On his campus, "we work with information technology staff and we have some in-house support staff to guide us through this process, because most of us are not database managers," Harrod says.

Budgets are a continuing problem for facilities managers. "They're always behind," says Harrod, although in some parts of the country, "this isn't too bad a time right now; some catch-up is occurring, whether for staff salaries or infrastructure. There seems to be some sensitivity to those needs, but not to the degree of need that's really out there."

So part of the challenge for facilities officers, Harrod maintains, is "keeping people aware that it's an ongoing need. It's not something that politicians or the board of regents can fund once and then forget about it for five or ten years. It's a recurring expense."

APPA can help its members address these issues. The association is "healthy," he says. "We have some dynamic people in the organization, both support staff and on our Board and committees. There are a lot of people who are interested in making this organization wholesome, purposeful, and real to its members."

**Alan Dessoiff, a freelance writer based in Bethesda, Maryland, has written profiles of several APPA Presidents. He can be reached at [dessoiff@crols.com](mailto:dessoiff@crols.com).**



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But APPA also must address issues of its own, including retaining and supporting members and minding the association's resources. "We've been pretty lucky with our financial health and with Board support, and we keep up to date with our systems. But we still want to be prudent about what we put in place and what information people really want to have available," Harrod says.

"We're in transition," he continues. "We're coming out of the strategic plan and putting together initiatives that will support it. We have to put together different 'what if' scenarios that represent options that our members want."

Building bridges with other associations is critical, particularly with organizations of college and university planners, housing managers, and business managers that "we have identified as important to APPA and our membership," Harrod says. The private sector also has "a lot to offer," he adds. "Our Business Partner members have experiences that we may not have had yet but probably will in time. They can assist us through some of the peaks and valleys that might be ahead. Doing that together benefits everyone, whether we are their future customer or vice versa. Partnerships where everybody wins is the way business is going these days."

In all those activities, personal contact becomes important, Harrod declares. "It's communication; being able to communicate and get feedback and provide feedback to members about the services in place for them. APPA's website can tell you everything you want to know about APPA, but do you know where to go there? We can collect data all day long, but is that of value to our members? Can we make it immediately accessible?"

It comes down to efficient collection of information and its timely delivery to members, Harrod says. "Associations have to sift and sort the massive amount of information that's out there, and if we don't somebody else will," he advises.



Henry Mall

Photo by Rhonda Hoke



Maggie Kinnman passes the  
Presidential gavel to John Harrod at  
APPA's July 2000 Annual Meeting





**Armory (Red Gym) with the Memorial Union Terrace and Lake Mendota in the foreground**



**Harrod is proud of the UW campus; here shown is the west campus**

Maintaining close contact with members is part of the role of APPA's elected officers—"to be as available as possible to the membership, listen to what they have to say," Harrod says. He plans to travel to regional meetings in the U.S. and abroad to fulfill that responsibility. "We're in a global economy, and I'd like to tap the experiences of others and bring it into the organization," Harrod says.

Harrod also wants APPA's staff to become more involved, through travel and increased communication from the Alexandria, Virginia office. "I would like to see staff take the initiative to call the Board members of every region on a regularly scheduled basis and ask how they're doing. That's what gets members to think 'Gee, APPA really does care; they're interested in what I'm doing and what I have to say.' That personal contact is vital," Harrod states.

Meanwhile, maintaining good staff presents its own challenges, Harrod says. Particularly in the Washington, D.C. area, where there is strong competition for human resources in the association community, "we've been very lucky; we've had good staff," Harrod says. "When people leave, it can cre-



**Aerial of UW-Madison campus looking northwest toward Lake Mendota**

ate a real burden," Harrod says. It's the same on campuses as employees depart, often drawn away by better-paying positions in the technology sector. "For a long time, people came into a business or profession and stayed there. Now, they job-hop. How can we compete with the techies?"

At his institution, Harrod says, some employees with more than 30 years of experience are preparing to retire and when they do, "institutional memory goes with them, and finding their replacements is going to be a challenge." On campuses and in APPA, "we have to figure out how to groom more people to take the reins when some of us move on. We have to bring new people into the facilities business and prepare them to be the managers of the future."

Harrod prepares to move into APPA's top leadership position from a traditional place: the Midwest, where APPA began in 1914 as a regionally-based organization with a Big Ten core. Harrod has spent his entire career in the Midwest, at three institutions—Iowa State University, Northern Illinois University, and since 1991, the University of Wisconsin-Madison.

He credits William (Bill) Whitman, an APPA member emeritus and past APPA President, with giving him his start at Iowa State, where Whitman was assistant vice president for facilities. "I was still going to school and he hired me as a landscape designer," says Harrod, who remained at Iowa State for 18 years, moving up to associate director for physical plant operations.

When the job at Northern Illinois opened and Harrod applied because "I felt I needed to continue to grow," Whitman was supportive. "I asked him what opportunities there were for me if I remained at Iowa State and he said 'none' and I asked what I should do and he said 'leave,'" Harrod relates. He





*From the Iowa State University leadership factory: President-Elect Gary Reynolds, President John Harrod, and Past APPA President Bill Whitman*



*Students on Bascom Hill*

spent four years at Northern Illinois before moving to Wisconsin.

Harrod is proud of two programs he initiated at Wisconsin to address problems of deferred maintenance. One is CURB (Concentrated Upgrade and Repair of Buildings) and the other is CARE (Concentrated Assessment and Refurbishment

of Equipment). By putting together cross-disciplinary teams of carpenters, plumbers, electricians, and other specialists who previously never worked well together, Harrod has managed an efficient and cost-saving process that has upgraded buildings and also "turned the tide of how we are viewed at our institution." Now, "there is a campaign at the Deans' level to see who is going to get the next

CURB/CARE assignment. They want us to come into their facilities," Harrod says.

Harrod also has worked his way up through the ranks in APPA, as a member since 1982 and a board member who has undertaken various assignments since 1990. "John Harrod is a consummate professional," states Ron Flinn, Past APPA President and assistant vice president for physical plant at Michigan State University. "I've been especially impressed by his commitment to our profession and the contributions he has made to APPA, especially in the educational arena. I'm extremely pleased that the APPA membership has seen fit to elect him to our highest office."

Harrod and his wife, Jane, have two sons—Scott, 29, a loan officer, and James, 20, who attends a local community college near their Wisconsin home. The boys, avid water skiers, have performed in ski shows. Their father skis recreationally but otherwise, "I drive the boat." When not skiing, he and Jane enjoy cruising Wisconsin's lakes in their 21-foot Master Craft.

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# What Should Stay Put?

## CAMPUS LANDSCAPE PLANNING FOR THE LONG TERM

By Mike Van Yahres

Change is inevitable, but many aspects of a higher-education campus should be regarded as constant. Old buildings may be demolished or new ones built, but structures rarely move. The campus landscape tends to “stay put,” although it changes in response to the seasons, weather, usage, and—perhaps most important—as where facilities managers have the potential for the most impact—the level of maintenance and care.

The campus is the physical embodiment of the values of an educational institution. Among all the important components of such an environment, only the campus itself stays put. Faculty, staff, trustees, programs, students, and knowledge all change constantly. Beyond its obvious role as an aid to marketing—attracting students, faculty, and even financial support—the campus represents significant investment in the future. Campus planning and design decisions should be made in the context of the institution as an historic environment

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that is there for the far-reaching future. Planning for the long term means establishing which elements of a campus landscape will stay put and which will need to be changed, replaced, or upgraded.

A campus, like the human body, is an organized composition with its own special anatomy. The landscape is far more than the space between buildings: it is the *rational organization* of outdoor spaces and everything that encompasses—pavements, walls, utilities, lighting, lawns, trees, and other

What Stays Put in Higher Education?

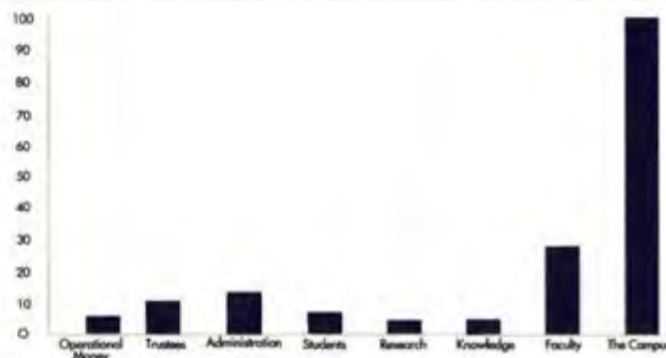


Figure 1: What Stays Put in Higher Education?



plantings, signs, and furniture. The way that space is designed, used, and maintained can be crucial to the success of the school in attracting new students. It has been some time since the Carnegie Foundation for the Advancement of Teaching found that the campus visit was the most important deciding factor in high-school students choosing a college or university, and that 62 percent of those students said that "the appearance of the buildings and grounds" influenced their decision most. Nonetheless, we assert that the qualities and importance of the campus environment stand the test of time and remain applicable today.

If you were to gather a group of experts and walk around any contemporary campus, they probably would agree on what is good versus bad in terms of architecture, landscaping, and other elements of an attractive academic environment. It is far more important to ask which elements are enduring, simple (i.e., elegant), easy to maintain (thus designed for longevity), and fit the context of the environment in design and style. Putting all elements of a campus landscape through those filters will identify the best aspects of that environment. Today's campus facilities managers must ask themselves, and their superiors, if the result is a precedent that is worthy of being continued or indicates the new to set a new precedent that they will want to use forever.

The most common problem in identifying what should stay put on a campus and what needs to be changed is the conflict between expediency—the need to respond to an immediate need, mandate, or crisis—and thinking long term, toward investing in quality for the ongoing future. For facilities managers, this conflict often is expressed in terms of the budget. You can say no to a proposed quick fix and get fired, or you can start working toward developing a higher level understanding by the upper-level administration of the importance of maintaining elements of the landscape at a lasting level of quality.

### Investing for the Long Term

The trend on campuses today seems to be low levels of spending to create a nice look that does not last (and even ends up wasting those funds because the "quick" or "cheap" fix has to be redone later). It is common for campuses to use a suburban or residential model for plant selections. For instance, selecting flowers that look pretty and colorful for a season, but do not last over time.

The ideal, however, is to look at every campus landscape project as a 50-year investment. Now is the time to establish a policy of quality over quantity, of lasting elegance over quick-fix expedience.

The facilities manager who is told to do something about paving a campus walkway or parking lot can spend less time and money now by using concrete or asphalt; brick may be considered "too expensive." It is true that brick is about three times more expensive than other materials, but it has a far longer life cycle. If there are any problems with the surface or

an area beneath it, the best one can do with concrete or asphalt is to patch it. Bricks, however, have sustainability; they last longer and, even if underground repairs must be made in a bricked-over area, can be taken up and replaced.

A facilities manager told to put in a barrier or entrance sign also has a number of choices. The "quick and cheap" fix might result in a superficially attractive item that degrades and falls apart within a year or two. Something designed and installed by a professional in a more lasting material might cost more initially, but will last for many years and contribute to a sense of historical reliability that enhances the campus.

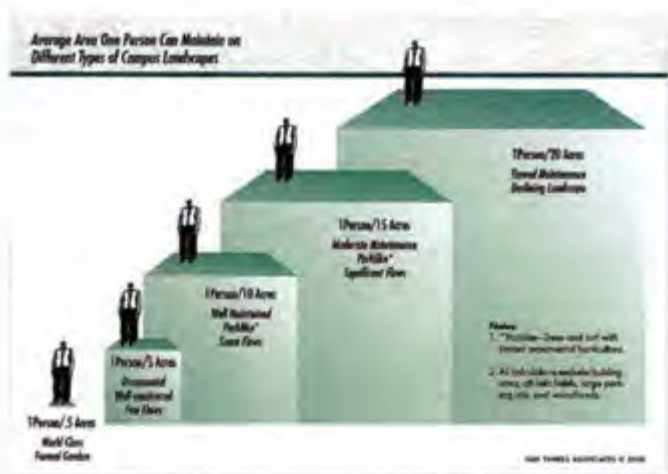
The long view goes not only for structures, pavements, and signage, but horticulture as well. The life cycle of decorative or ornamental flowers and shrubs is about ten years. The life cycle of trees and grass is 100 years. To maintain moderate tree cover on a 100-acre campus usually would require replacing five trees per acre over five years, or one tree per acre per year at about \$400 per tree. Planning over five years allows facilities managers to finetune a landscape plan and spread the budget over time. Shade trees are generally large-growing, long-lived, and native to their environments, making them best fitted for long-term use. Small flowering, ornamental and exotic trees do not last as long and require more care and more frequent replacement.

Aspects to keep in mind when planning landscape maintenance for quality and longevity include the kinds of work to be done in grounds maintenance. Turf maintenance generally is the most time-consuming, at 25.7 percent of the average campus workforce's time, followed by horticulture at 20 percent. Spring and fall clean-ups (clearing winter debris or fall leaves, for instance) and edging work take about 11.4 percent each. Arboriculture comes in at 8.6 percent and flowers at 5.7 percent of the workload. It is assumed that arboriculture work would be directed by an arborist certified by the International Society of Arboriculture (ISA), whether on staff or as a consultant, and following ANSI A-300 standards.

It is worth noting that the relative complexity of work and time spent on campus landscape management programs varies with the type of landscape materials being used. Maintaining turf takes the most time, followed by ornamental horticulture and then by arboriculture (tree care), while arboriculture involves the most complexity, followed by ornamental horticulture and turf as the least complex. This suggests that maintaining an attractive landscape of grass and turf may be time-consuming but can be accomplished with the least need for professional expertise and training, while arboriculture may require the greatest professional expertise but takes the least amount of time to maintain.

For many campus facilities management departments, staffing levels are an issue in whether the environment is managed with a short-term versus long-term mentality. Workers can provide different levels of maintenance quality depending on how much acreage is in each worker's area of responsibility. For a world-class result, such as a formal





**Figure 2: Average Area One Person Can Maintain on Different Types of Campus Landscapes**

garden, one person can maintain about half an acre. It takes one person to maintain up to five acres of an ornamental, well-manicured landscape with a few flaws. That person can maintain up to ten acres of a well-maintained, park-like environment with, again, some flaws. When the space reaches 15 acres, one worker can only provide moderate maintenance for a park-like look that has significant flaws. At 20 acres, one person no longer can provide a quality result; maintenance will be flawed and the landscape will decline in quality (these calculations are for areas other than buildings, athletic fields, large parking lots or woodlands, with "park-like" involving trees and turf with limited ornamental horticulture).<sup>1</sup>

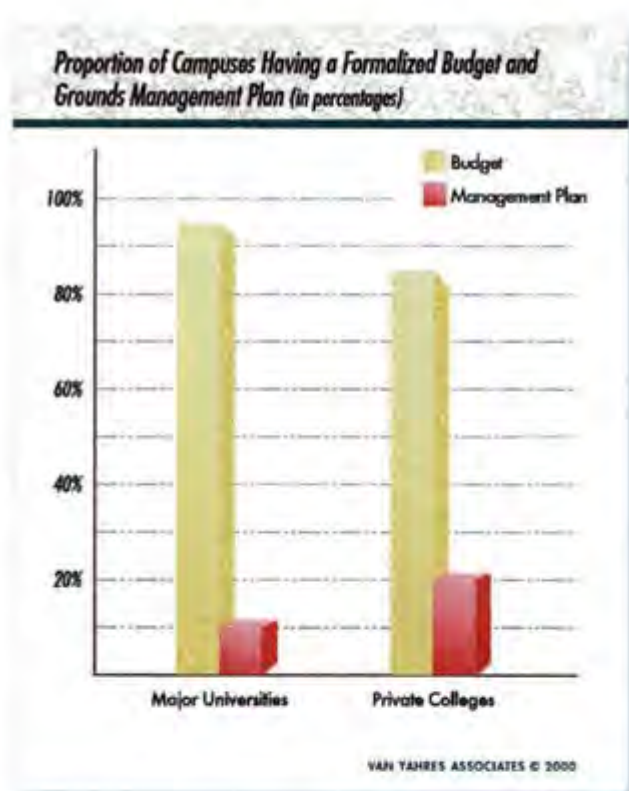
This is not to say, by the way, that colorful, seasonal plantings are utterly inappropriate for the campus environment. It is to say that there should be a predominance of materials that last over time, with seasonal elements added as you have staff to maintain them properly to provide color and brightness in appropriate areas.

It is always interesting to look at how facilities managers assign their budgets for various aspects of the look of the environment. On most of the campuses that have major components of a formalized grounds management plan (and ideally a future-oriented perspective on what stays put), frequencies and schedules are the most significant elements of such plans. Quantifying tasks comes in next, followed by attention to standards and specifications, establishing maintenance zones, staff involvement, and monitoring and making adjustments.

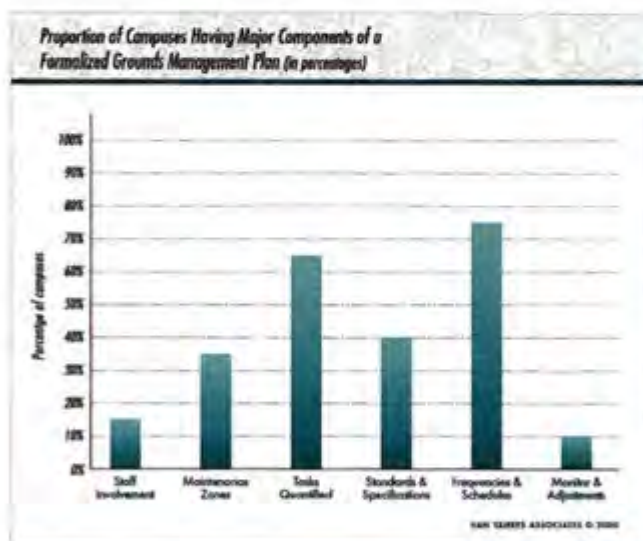
### Principles for the Long Term

Among the campus landscape elements that tend to stay put in the face of constant change are its entrances, center,

1. APPA is in the process of assessing and developing guidelines for the staffing aspects of campus landscape maintenance. The forthcoming publication, *Operational Guidelines for Grounds Management*, is a cooperative effort by APPA, the Professional Grounds Management Society; the American Public Works Association, and the National Recreation and Park Association.



**Figure 3: Proportion of Campuses Having a Formalized Budget and Grounds Management Plan**



**Figure 4: Proportion of Campuses Having Major Components of a Formalized Grounds Management Plan**

and edges. These and other areas can be maintained for both the present and the future by paying attention to key principles.

First impressions are crucial to public and internal perception of an institution. While the location of an entrance tends to be static, its look may have to change as architectural and



landscape design trends change. Consider using materials such as stone or brick when revamping such a landscape element, to create a look that can stay put over time.

As Thomas Jefferson said, "A university should not be a house, but a village," and that means creating an identifiable center—a place for ceremony as well as everyday campus life. That center should be part of an intentional organization of both indoor and outdoor spaces. A brick plaza, for instance, is a center space that will last over the long run and retain its beauty as well.

From where it meets its surrounding community to the scale of individual walkways, well-defined campus edges are crucial to defining spaces and creating character for all elements of the landscape. Make sure these elements are attractive and easy to maintain. Again, brick in edges and walkways are one long-term way to ensure attractiveness as well as future-oriented maintenance and value.

The landscape is central to organized circulation on any campus. Parking and traffic—both foot and vehicle—circulation are the most-studied but least-resolved issues affecting the design and maintenance of most campus landscapes.

However, if parking and circulation are considered as part of the campus, they will be subject to the same values and design standards as the rest of the institution and become safe, efficient, convenient, and complementary to the overall quality of the landscape.

There is a tendency to feel pressure to beautify important areas of a campus landscape, which often results in over-design or temporary, low-budget fixes that detract from the long-term look of the place. Rushing to use materials and design details with lower installation costs also contributes to a drop in lasting quality. Rather than move too fast and create a mishmash of elements and materials, take the time to ensure that buildings and the site reflects a consistency of materials and design throughout.

Unfortunately, many campus landscapes are not designed with the time and money required for management and maintenance in mind. Such environments result in demands that easily overwhelm the resources of the physical plant staff, cancel out the potential effectiveness of exemplary design, and detract from the campus image by making it difficult to keep the space up to high standards.

### The Bottom Line

Such expediency need not be the operating principle for any APPA member campus. Educating administrative higher-ups about the value of such long-range planning is key to success in these efforts. By focusing on the cost savings and staffing benefits of long-term landscape management and maintenance planning, educational facilities managers can play a vital role in creating campus environments that look great not only year-round but years from now as well. 🏛️

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### Go to the source - consult the experts

When planning "what stays put" in landscape installation, management, and maintenance activities that focus on quality today for longevity tomorrow, be sure to use the advice and skills of experts. Investing in quality now will result in the most effective use of funds, time and staff over the long term. Here are the key associations to contact for professionals in landscaping, tree care, and related services, all have chapters or regional groups. Most have certification programs to enhance the professionalism of their members.

#### Associated Landscape Contractors of America (ALCA)

150 Elden Street, Suite 150  
Herndon, VA 20170  
phone: 703-736-9666 or 800-395-2522  
fax: 703-736-9668  
www.alca.org

#### Council of Tree & Landscape Appraisers (CTLA)

15245 Shady Grove Road, Suite 130  
Rockville, MD 20850  
phone: 301-947-0483  
fax: 301-990-9771  
www.lcamddcva.org

#### International Society of Arboriculture (ISA)

PO Box GG  
Savoy, IL 61874-9902  
phone: 217-355-9411  
fax: 217-355-9516  
www.isa.org

#### Professional Grounds Management Society (PGMS)

720 Light Street  
Baltimore, MD 21230  
phone: 800-609-7467 or 410-752-3318  
fax: 410-752-8295  
www.pgms.org

#### Professional Lawn Care Association of America (PLCAA)

1000 Johnson Ferry Road NE, Suite C-135  
Marietta, GA 30068  
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fax: 770-578-6071  
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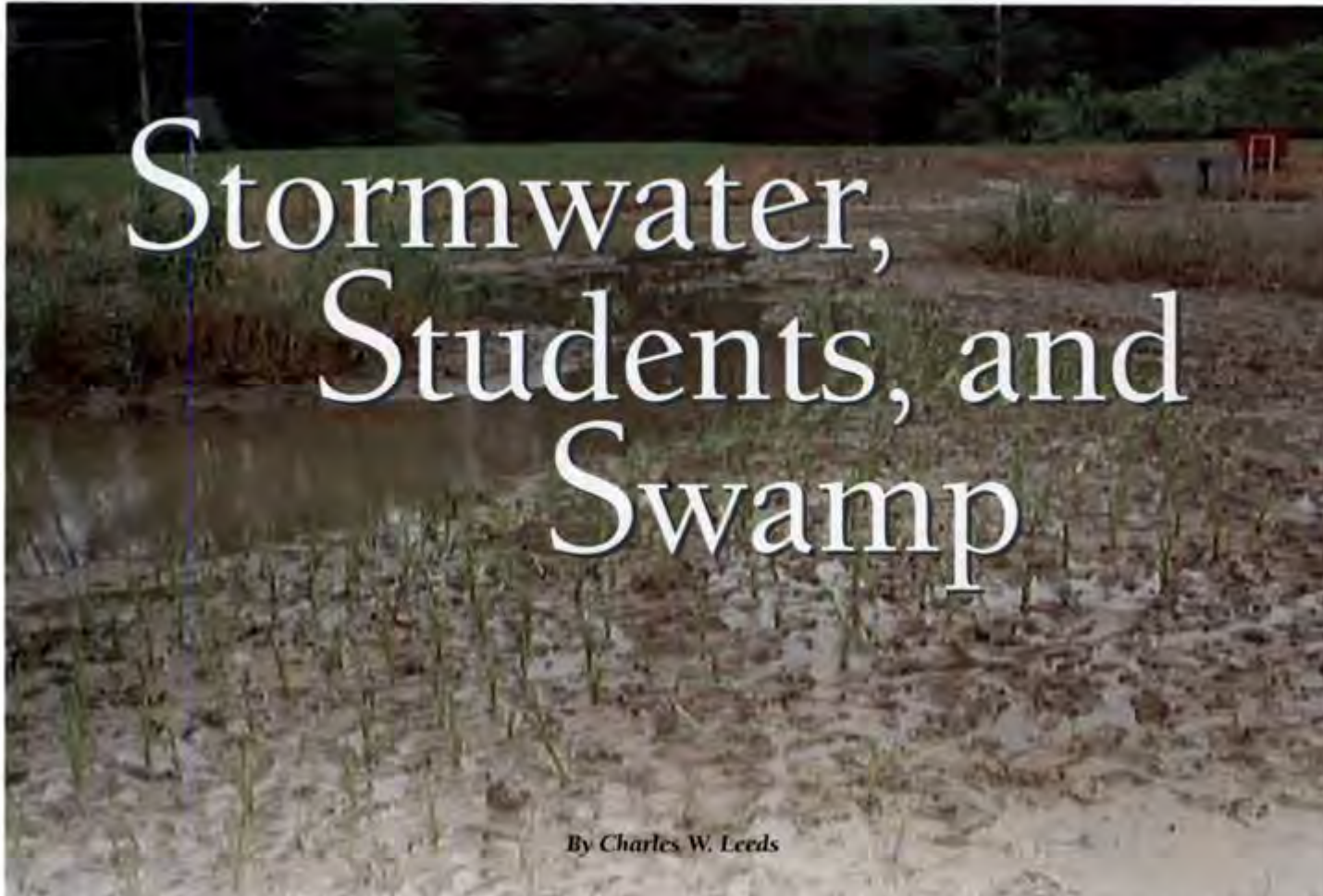
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# Stormwater, Students, and Swamp

By Charles W. Leeds

Villanova University has a new landscape feature. It is a two-acre swamp. Actually, it is a stormwater wetland. In engineering terms it is a BMP (Best Management Practice). By whatever name you might choose, it is an example of what can be accomplished when faculty, students, and staff work together.

The wetland is the result of redesigning and restructuring a preexisting stormwater detention basin. This basin, as originally built, held stormwater temporarily and then quickly discharged the water into a local stream. The newly constructed wetland is designed to hold water from small storms for a more extended time. This should allow for sediments and pollutants to be removed from the water before it leaves the site. In greater storms, the site still functions as originally designed.

The project was conceived and designed by Dr. Robert G. Traver and his students in Villanova's Department of Civil and Environmental Engineering. Dr. Traver is heavily involved in stormwater work in his career as both a civil engineer and as

a professor of environmental engineering. He saw this project as an opportunity to reduce non-point source pollution and to create a permanent research and demonstration site.

The wetland drains approximately 41 acres of urbanized land on the Villanova campus that includes parking lots, many buildings, and a railroad. The potential for non-point source pollution here is great. The waters eventually flow into the Schuylkill River and then to the Delaware River estuary. The Delaware estuary is home to a variety of fish and other wildlife protected by the Commonwealth of Pennsylvania and, as such, is of great interest to the state's Department of Environmental Protection. Professor Traver was able to obtain grants from the DEP to fund the construction and part of the cost of plantings.

The transformation of detention basin into extended detention wetland was done using a local excavation contractor. A sediment forebay was constructed with a concrete floor and gabion walls. The bay measures 40 X 40 feet and is three feet deep at its outlet. Water enters the wetland from several large pipes and flows through a flat area of vegetation to the forebay. A low berm was constructed to direct the water into the forebay.

From the forebay, a meandering flow of water was created by building a series of finger-like peninsulas. It then flows through a micropool and out through a concrete outlet structure. James Zaleski, director of engineering and services for

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*Charles Leeds is the horticultural supervisor for facilities services/grounds at Villanova University, Villanova, Pennsylvania. He can be reached at [charles.leeds@villanova.edu](mailto:charles.leeds@villanova.edu).*



facilities management at the university, worked closely with Dr. Traver and the contractor to facilitate the construction phase of the project.

After completion of construction, the site was allowed to sit during the first half of 2000. This allowed for some tweaking of grades and sprouting of undesirable vegetation, primarily common reed (*Phragmites australis*). Unfortunately, the grading process spread rhizomes of this weed throughout the site. Several applications of an approved herbicide greatly reduced the population of the *Phragmites*. This set the stage for the final phase of wetland creation. It was time to get appropriate plants into the site.

The horticultural staff of the Grounds Department compiled a list of desired native wetlands plants. Various sedges, flowering streamside plants and shrubs, and true aquatics such as sweet flag and pickerelweed were selected. These plants were obtained from two local nurseries that specialize in wetlands restoration and streambank stabilization work. Funding for plant purchases totaling some \$4,000 came from the Department of Environmental Protection grant and an additional grant from the Delaware River Keeper Network.

On June 28-29, 2000, a group of engineering graduate students and several summer student employees of Facilities Services joined with Dr. Traver and me to install the plantings. Dressed in hip boots and armed with trowels, this group managed to place over 7,000 plants in just a day and a half. Slogging through knee-deep mud and planting into flowing water was a challenge that was enjoyed by the whole team. In the two months that have passed since the installation of the

## Resources:

**Dr. Robert G. Traver**

**Department of Civil and  
Environmental Engineering**

Villanova University

800 Lancaster Avenue

Villanova, PA 19085

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plants, weather conditions have been extremely rainy and there have been several major storm events. The plants are thriving and the wetland seems to be functioning well. As the plants mature and fill the site, they should be very effective in cleaning the water.

This cooperative project brought together students, faculty, facilities management staff, and several outside agencies. The innovative crossing of traditional lines allowed a diverse group of people to create a living laboratory for engineering, biology, and environmental studies for Villanova University while addressing a serious water quality issue to the benefit of our local region. 🏰





# When is it time to contract out your landscape operations?

By Stephanie DeStefano

**I**s privatization the right way to go in managing your grounds operations? This is a very complex question, which can only be answered after a careful evaluation of your unique needs and goals. Managers need to focus on whatever operational approach will offer the most cost-efficient and highest quality service in a manner that is consistent with the institution's mission. You must also understand that only the provision of a service can be contracted for, not the responsibility for it. The ultimate accountability will always rest with the institution.

## Help! We Can't Do It All Anymore!

What situations trigger the desire to consider outsourcing services to an outside contractor? Perhaps the institution is experiencing an operational or financial crisis. A management change is another likely opportunity for an investigation into outsourcing. Whatever the reason, the goal is usually the

same: to best meet the mission of the institution and improve both the level of customer satisfaction and financial performance. Outsourcing operations is often looked at as a way to get more for less, and this can be the case if careful step-by-step planning is done from the outset.

## Consider Your Costs and Needs

The first step in determining what would best suit your property is to define your costs and needs. If you presently have an in-house operation, consider your costs, both direct and indirect. Indirect costs are often left out of the equation when determining costs, to the detriment of the evaluation.

### Direct Costs

Labor, hiring, personnel costs  
Equipment and repairs  
Materials, supplies, and tools  
Chemicals  
Fuel and oil  
Phones, radios, pagers, etc.  
Office/shop space  
Uniforms

### Indirect Costs

Training  
Administration  
Employee benefits  
Insurance and workers  
Compensation  
Dumping fees  
Computer equipment  
Small tools

*Stephanie DeStefano is grounds contract manager for the Leisure World of Maryland Corp., Silver Spring, Maryland. She is a board member of the Professional Grounds Management Society and is a PGMS representative to the Grounds Staffing Guidelines Task Force. She can be reached at stefano@intr.net. This article is taken from the forthcoming publication, Operational Guidelines for Grounds Management.*

Once you have determined your costs, the next step is to define your needs and see whether they are presently being met, are lacking, or could be excessive and wasteful. The following considerations may be useful:



- Scope of contract
- Inventory of property to be contractually maintained
- Identify tasks to be included in contract
- Quality of landscape maintenance desired
- Efficiency, quality, and stability of staff
- Degree to which you need to retain control and flexibility of your staff
- Relationship with other departments
- Shared staff and equipment
- Public relations—image
- Security
- Efficient use of space, equipment, and storage

When you have identified your costs and needs, you will then be able to determine whether outsourcing services would be the best choice for your operation.

### **All, Some, or None?**

Do you need *all* services outsourced, or would contracting out a portion of the operations best suit your needs? Several grounds managers at large universities find that contracting out a portion of the operations works very well. Since colleges, as well as many private institutions, have very specialized needs and require a flexible and versatile staff, they feel only an in-house crew can meet their daily needs. Their staff is often required to assist other departments for special events, graduations, etc., and also do ground work for plumbing, utilities, and other tasks. Their staff can also most cost-effectively perform the ongoing extensive annual, perennial, bulb, and other miscellaneous plantings by purchasing directly from the grower with no mark-up from an outside contractor.

This can save on material costs—but what about labor? An outside contractor may be able to install plants more quickly with specialized crews and equipment, and also might possibly be able to purchase materials more competitively with their established suppliers, thereby negating any gain from going directly to the grower. Therefore, large-scale landscape installation jobs or work requiring specialized equipment can often be outsourced for less.

Operations such as mowing, turf care, large tree work, and snow removal seem to be the most commonly outsourced services. Cemetery managers most often outsource mowing. Bringing in large numbers of laborers to complete the job in one day enables them to eliminate the “perpetual” mowing by the in-house staff.

### **No Surprise**

It is no surprise that landscape contractors offer many advantages when bidding on outsourced work, primarily cost reduction and improved quality. When looking for outside contractors, it is important to investigate a company's experience, staffing, scope of services, business philosophy, and, of course, costs. Some landscape contractors offer a comprehensive site survey and cost comparison of your property.

## **Writing the Contract Specifications**

To have a successful workable contract, it is imperative to include all essential information. Contract specifications should always be reviewed by the institution's attorney for proper legal information, insurance requirements, performance bonds, cancellation clause, etc. The general conditions should list:

- all tasks to be performed in detail
- working hours
- qualifications of workers
- security issues
- requirements or restrictions on any equipment, pesticides, materials, and methods which should or should not be used by the contractor on the site.

Clear definitions of all spaces where tasks are to be performed are critical, including accurate maps of those areas. A time schedule of when work is to be performed is important as well. You should define expected frequencies and time schedules. You should also identify, in the contract specification, the person who will be monitoring the contract and to whom the contractor will report. Figure 1 on page 44 provides a suggested contract outline.

### **Who Will Oversee the Contract?**

Who will oversee the contract? Whether all or part of the job will be contracted out, it is necessary to retain a trained in-house grounds manager to oversee operations. Good communication is the key to working with a landscape contractor. Frequent, positive communication between both parties involved will mean the difference between success and failure. Both parties should be very familiar with the scope of the contract and knowledgeable in all tasks being performed. It is in the institution's best interest to retain a professional grounds manager well versed in all aspects of the services required.

### **Apples to Apples, Bananas to Oranges**

With so many variables involved, it is no easy task to compare apples to apples on this subject. If you need help obtaining a non-biased comparison, there are landscape consulting firms who will do this for you. If you do decide to outsource, they are also available to manage your landscape contractor for you, as well as perform regular inspections and provide reports on levels of quality.

### **Network, Network, Network!**

Networking with other grounds managers through PGMS or other green industry professional organizations is an ideal way to learn from other people's experiences. They also can provide you with background checks and information you will need to make the best choice for your particular site. Many of these organizations have websites and are linked to other helpful websites. Take advantage of them; education is their mission. 🌱



**FIGURE 1: Contract Specifications and General Conditions**

<ul style="list-style-type: none"> <li>I. General Statement</li> <li>II. Contract Term</li> <li>III. Performance (penalty clause)</li> <li>IV. Contract Renewal</li> <li>V. Utilities, Storage, and Work Space for Contractor</li> <li>VI. Labor, Materials, and Equipment</li> <li>VII. Supervision</li> <li>VIII. Insurance</li> <li>IX. Hold Harmless</li> <li>X. Operations <ul style="list-style-type: none"> <li>A. Turf <ul style="list-style-type: none"> <li>1. Edging</li> <li>2. Foundation Trimming</li> <li>3. Fertilization</li> <li>4. Lime</li> <li>5. Pre-Emergent</li> <li>6. Post-Emergent</li> <li>7. Aeration</li> <li>8. Dethatching</li> <li>9. Overseeding</li> <li>10. Top Soil</li> </ul> </li> <li>B. Shrubbery <ul style="list-style-type: none"> <li>1. Pruning</li> <li>2. Edging and Mulching</li> </ul> </li> <li>C. Trees</li> <li>D. Flower Beds</li> <li>E. Insect and Disease Control <ul style="list-style-type: none"> <li>1. Tree- and Shrub-Control and Schedule</li> <li>2. Turf-Insect Control</li> <li>3. Plant Diseases</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>F. Weeding</li> <li>G. Natural Areas</li> <li>H. Trash Removal <ul style="list-style-type: none"> <li>I. Leaf Removal, Composting</li> <li>J. Snow Removal</li> </ul> </li> <li>K. Street Cleaning</li> <li>L. Interior Plant Care</li> <li>M. Special Services</li> <li>N. Environmental Concerns</li> <li>O. Waste Disposal</li> <li>P. Changes in Scope of Work</li> <li>Q. Permits and Licenses</li> <li>R. Employees of the Contractor</li> <li>S. Employee Conduct</li> <li>T. Working Hours</li> <li>U. Termination</li> </ul> <p>MEMORANDUM OF UNDERSTANDING</p> <ul style="list-style-type: none"> <li>I. Definitions</li> <li>II. Contractor-Employer Relationships</li> <li>III. Supervision by Contractor</li> <li>IV. Standards of Performance</li> <li>V. Extras</li> <li>VI. Exclusions</li> <li>VII. Flower Beds and Ground Cover <ul style="list-style-type: none"> <li>A. Definitions</li> <li>B. Flower Gardens, Bulbs</li> <li>C. Scope of Work</li> <li>D. Annual Bedding Plants</li> </ul> </li> </ul>
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- E. Soil Preparation
- F. Plant Materials
- G. Plant Materials Guarantee

### VIII. Tree Care

- A. General Conditions Standards
- B. Pruning and Corrective Bracing, Staking
  - 1. Preparation
  - 2. Application
    - a. Fertilizers
    - b. Preparation

### IX. Shrub Care

- A. Shearing and Pruning
- B. Fertilization

### X. Natural Areas

### XI. Contract Watering

### SNOW AND ICE REMOVAL

- I. General Statement
- II. Emergency Snow Removal
- III. Lesser Snow and Ice Conditions
- IV. Fee Schedule



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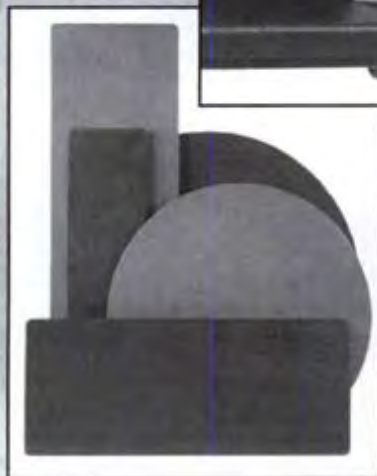
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# INTRODUCING THE PROFESSIONAL GROUNDS MANAGEMENT SOCIETY

By George Van Haasteren, CGM

**T**he Professional Grounds Management Society (PGMS) is an individual membership society of grounds professionals that has been in existence since 1911. The members of PGMS are grounds professionals who are part of the service arm of the Green Industry. Grounds generalists, turf specialists, arborists, horticulturists, athletic field specialists, irrigation specialists, and chemical applicators are just some of the people who maintain PGMS membership.

The purpose of PGMS is to unite professional grounds managers and those who provide service to the grounds management industry. Together, the members of PGMS promote the dissemination of educational materials and reliable information pertinent to the execution of grounds management functions and to assist in attaining and maintaining a high standard of business ethics.

PGMS defines a grounds manager as a member of a management team who is responsible for the operation and maintenance of a site or sites. The grounds manager is responsible for the management of staff, budget, materials, and equipment that is utilized in maintaining and enhancing

a landscaped site including turf, trees, woody ornamentals and flowers, outdoor structures, and related facilities. Additional responsibilities may include the maintenance of roadways, sidewalks, and parking lots, including snow removal.

All have joined together for the purpose of education, networking, and economic advancement. However, as it is not a trade association, PGMS is concerned with the individual grounds manager. The ultimate goals are to assist individual grounds managers in developing management skills and techniques to assure a truly outstanding grounds management program for the organization they work for and to aid in their professional development.

The majority of PGMS members are institutional grounds managers who work in areas such as schools, colleges and universities, parks and recreation, cemeteries, office parks, hotels and resorts, condominium and apartment complexes, theme parks, etc. The single largest group of members are from schools at the college and university level. The society also has a number of Sustaining and Company members along with Associate members who predominately work for schools or nonprofit organizations.

PGMS membership benefits include the Annual Green Industry Conference and Green Industry Expo,<sup>1</sup> bimonthly newsletter (*The Forum*), membership certificate, the Certified Grounds Manager (CGM) program and Certified Groundskeeper (CGK) program, local branch meetings and

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*George Van Haasteren is director of grounds operations at the Dwight-Englewood School in Englewood, New Jersey and member of the PGMS Board of Directors. He can be reached at [cgm35@aol.com](mailto:cgm35@aol.com).*



regional seminars, free educational manuals, "Who's Who in Grounds Management" membership directory, free industry magazine subscriptions, and more.

In keeping with its education orientation, PGMS also has student memberships and sponsors annual scholarships for high school and college students studying in fields pertinent to the profession.

## History of PGMS

The official start of PGMS was in 1911. The nucleus of the organization began as the National Association of Gardeners in suburban New York and New Jersey in 1905. Those original members were all "so-called" estate gardeners at the time.

What happened in 1911, however, was the realization that it just made sense to include all institutional grounds managers in the mix. Since then, the broadening of the society has continued though under two influences: the unique core of the society would be the institutional grounds professional, and the organization would remain a professional society for the individual (rather than a trade association).

Although the Professional Grounds Management Society has been in existence since 1911, in 1962, the society's 50th anniversary, activity in PGMS began progressing at a greater pace.

Since 1962 more turf specialists, horticulturists, arborists, and even landscape contractors have joined PGMS, especially if their daily labor involves them in some type of work for an institutional setting. The society's activities since 1962 have been extremely varied, and involve a relative balance of things "inside" and "outside" the organization.

Things considered as important "inside" efforts during the period have included:

- Completely changing the working relationship with the society's local branches to bring the group into greater commonality
- Originating the Certified Grounds Manager program in 1980 as the first such program of its type in the service portion of the Green Industry
- Originating the Certified Groundskeeper program in 1996
- Development of an environmentally aware beliefs and mission statement



The greatest changes, however, have been those relating to things "outside" the organization. Some of these are a direct result of the increased marketing awareness and capability. This has included:

- Development of one of the first scholarship programs in the industry
- Joining with the Associated Landscape Contractors of America (ALCA) and the Professional Lawn Care Association of America (PLACA) to form the Green Industry Expo
- The Green Star Professional Grounds Management Awards
- Adding a "Company" category membership to accommodate those organizations that wish to work more closely with PGMS
- Creating a strategic partnership with other professional membership organizations that could benefit by PGMS expertise. This includes written working agreements with the American Public Works Association (APWA) and APPA for schools, colleges, and universities
- Developing *Operating Guidelines for Grounds Management* with APPA, APWA, and the National Recreation and Park Association

PGMS believes that there are four necessities to remaining a professional in

the industry:

- Being a member of an appropriate membership organization or organizations
- Attending educational conferences in the field
- Reading industry publications
- Becoming certified at the level you wish to operate

## Other Key Facts About PGMS

PGMS is the only membership organization specifically for grounds managers. Also, PGMS is the oldest individual membership organization for grounds professionals and the only membership organization serving the Green Industry which grounds professionals may join as individuals.

## PGMS Annual Conference

Each November, PGMS holds its Annual Conference coupled with the Green Industry Expo. This year the Conference will be held in Indianapolis from November 4-7.

The three GIE partner organizations will present nearly 60 separate education sessions at the convention center, with each organization sponsoring about one third of the sessions. All registrants have cross-attendance privileges to all the sessions. The PGMS subjects for 2000 include:

- The Ten Most Stressful Sites in the Landscape
- Avoiding Plant Stress
- Diverse Crews Working Together

<sup>1</sup> The Green Industry Expo is an annual supplier exhibit, which is cosponsored by PGMS in conjunction with the Associated Landscape Contractors of America and the Professional Lawn Care Association of America. Each of the three organizations holds its perspective conference in conjunction with the Green Industry Expo (GIE).



- Slope Stabilization and Beautification
- Shrubs and Groundcovers for those Stressed Landscape Areas
- Trees for those Stressed Landscape Areas
- The Best Maintenance Practices for those Old Trees
- Contracting Your Arborists Services
- Annuals for High Impact
- Perennials for All Seasons
- Leadership
- Challenges of Wildlife in the Landscape
- Maintaining Your Native Soil Athletic Fields
- The University of Notre Dame Landscape: Challenges and Solutions
- Native Plants for the Commercial Landscape
- Working at a Higher Level with Equipment Suppliers

The PGMS education program is specifically designed to be of equal value to both on-staff institutional grounds professionals and independent landscape contractors. Also included are technical, general business, and motivational elements. The technically orientated sessions cover the full range of interests, including athletic field maintenance, horticulture, turf management, arbor interests, and more.

Three mornings during the conference there will be a group "Business Over Breakfast." Registrants meet to discuss subjects of mutual interest in informal roundtable style prior to the day's formal programming. Also included are the society's annual business meeting, CGM breakfast, and awards banquet.

PGMS members save \$100 on the registration fee over those who are not members. Registration includes everything on the PGMS conference schedule with the exception of certain optional ticketed events, such as the awards banquet. Also included is attendance at the three sponsoring groups' education sessions and the entire Green Industry Expo, including an outdoor demonstration of equipment.

### Green Star Professional Grounds Management Awards Program

The Green Star Professional Grounds Management Awards Program is now cele-

brating its 28th year. This program brings national recognition to grounds that are maintained with a high degree of excellence. This program also salutes the grounds manager responsible for maintaining a well-manicured landscape year round. Grand and Honor Awards are offered in 13 categories, covering private, public, commercial, and industrial landscapes.

The aims of this awards program are:

- To bring national recognition to grounds manicured with a high degree of excellence

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- To recognize individual professional efforts leading to high maintenance standards and high quality appearance of the landscape
- To challenge those responsible for grounds throughout the country to achieve a higher level of excellence

An entrant must be professionally engaged in and responsible for the maintenance of grounds. Any size landscape for which the entrant has the main responsibility for maintenance and beautification may be entered. The amount of money in the landscape-operating budget is not a criterion for judging. Rather, judging will be based on the quality, challenge, and performance of maintaining the site or sites.

There are two classes of awards: Grand Awards and Honor Awards. Only one Grand Award may be presented in each of the categories listed. The judges may grant as many Honor Awards as they feel deserving, or they may decide that no entries are deserving in a given category. A distinguished panel of judges will determine the award winners.

The awards will be presented during the annual conference of the Professional Grounds Management Society, held in conjunction with the Green Industry Expo on November 6th in Indianapolis, Indiana.

### Certified Grounds Managers Program

The PGMS Certified Grounds Manager Program, the first and premier program of its type, recently underwent its first

updating since its introduction back in 1980. The changes were made to bring the program well into the new century.

The changes support the original premise of providing a peer review program to measure, evaluate, and attest to at least the key basic competence of a professional grounds manager, the result of which is protection of the public and potential employer, while strengthening the green industry field itself.

Please see my article in the July/August 2000 issue of *Facilities Manager* for a full description of PGMS's CGM program.

### Certified Grounds Keeper Program

Back in 1996, Past President Randy Willis, CGM, instituted a program that would add to the professionalism of individuals who performed the day-to-day tasks and also attest to their competence for working in the field of grounds maintenance. The program Randy started became known as the Certified Grounds Keeper Program (CGK). Today many have taken the test and have become CGKs.

The requirements for this program are that an individual has a high school diploma or GED. Also, the individual has two years experience in the grounds maintenance field. A training manual is provided for all candidates and it covers the following:

- Basic Plant Care
  - Shade Trees
  - Turf Management
  - Shrubs and Flower Care
  - Pest and Disease Control
- 50 multiple questions are administered by an approved proctor and a minimum score of 80 percent is required for passing. Application fees are the same as for the CGM program.

### Branches

PGMS's branches serve to promote and supplement the work of PGMS. PGMS recognizes the vital role of the branches in addressing issues and promoting educational sessions on a local level.

Branches that serve and support PGMS are:

- D.C. Branch (MD, VA)
- First State Branch (DE)
- Free State Branch (MD)
- Greater Cincinnati Branch
- Greater Kansas City Branch
- Greater Lehigh Valley Branch
- Greater St. Louis Branch
- Hawaii Branch
- Miami Valley Branch (OH)
- Middle Tennessee Branch



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## New Comprehensive Facilities "Grounds Staffing Guidelines"

A consortium of facilities and green industry membership associations are in the final stages on the development of an all-new comprehensive "Grounds Staffing Guidelines" manual. According to the development task force, there is a great need among facilities and grounds professionals for a practical, comprehensive, and up-to-date tool to better manage their financial, physical, and human resources.

The Grounds Staffing Guidelines tool will consist of at least one publication, web-based information, and a possible software program. The organizations involved with the collaborative grounds task force are PGMS, APPA, APWA, and NRPA.

John Feliciani, PGMS chairperson of the task force, states, "What will make this tool different will be the sheer comprehensive and up-to-date nature of its content. Never before has there been such a thoroughly planned and broad-based work on the subject."

Information areas already planned for the tool include:

- Tasks
- Levels of maintenance
- Maintenance frequencies
- Job and position descriptions
- Auditing of resources (inventory and condition)
- Equipment descriptions
- Regional environmental zone differences
- Benchmarking
- Glossary
- Regulatory agency contact list
- Index of affiliate organizations
- Plus a wide range of planning sheets and absolute maintenance measurement resources for all types of grounds maintenance operations.

## Scholarship Program

Each year PGMS grants various scholarship stipends to several students studying landscape, horticulture, turf management, or a closely related field.

To apply for a scholarship all applicants must submit the following:

1. Completed scholarship application form.
2. Cover letter.
3. Current resume.


4. College or school transcripts.
5. Two letters of recommendation.

All applicants are judged on completion and presentation of the total criteria.

## Looking Ahead

PGMS vows to continue in its primary goal to assist the individual grounds manager in developing techniques and management skills to assure an outstanding program for their organization and to upgrade the level of the profession. As bywords for the future, PGMS believes that for itself, as well as for all other Green Industry societies and associations, networking and partnering are going to be more important for the groups and members alike.

For those interested in PGMS for membership or any additional information, you may do so by contacting them at:

The Professional Grounds Management Society  
720 Light Street  
Baltimore, MD 21230  
Phone: 800-609-7467 or 410-752-3318  
Fax: 410-752-8295  
E-mail: [pgms@assnhqtrs.com](mailto:pgms@assnhqtrs.com)  
Website: [www.PGMS.org](http://www.PGMS.org) 

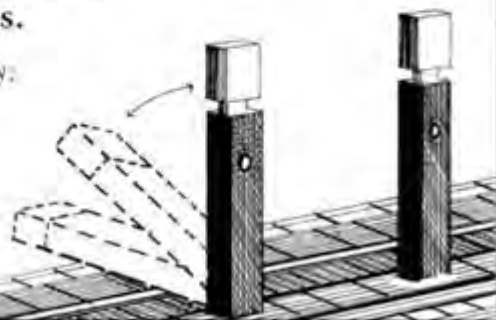
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# Getting to GO

## *A Report on RR-USA*

*By Donald T. Little*

Over the past two and a half years, APPA and NACUBO have sponsored ten Resource Reallocation-Utility Strategic Assessment (RR-USA) executive briefings. These state-based meetings have directly benefited over 300 chief business and facilities officers in states from California to Maine. The theme of these briefings is as simple as it is compelling. In a highly competitive realm such as budgetary resource allocation, the plant asset portfolio must be strengthened and renewed through the discrete and beneficial action of reallocating and leveraging cost-avoided dollars.

Utility dollars, and operating budget item that is steady and of necessity adequate, can often be aggregated into a resource pool when attention is given to avoiding costs in the supply, demand, and operations phases of facilities operations.

The advent of electric utility deregulation in many states has created the possibility of purchasing the basic electric utility in an environment that can, in time, be expected to be more efficient. Expect market choices and pricing structures that give the advantage to the customer, namely, you. This

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phenomenon is what we mean by the supply side of the utilities operations.

Demand side activities that make wide ranging investments in the efficiency of the distribution and delivery modalities of campus utilities have become commonplace. Many colleges and universities can now match the very best efficiencies that are routinely found in the commercial real estate sectors of the economy. The potential for cost avoidance and the reallocation of these dollars has been a powerful driving force on many campuses, thus creating a utility infrastructure that is reliable, renewed, upgraded, and positioned for growth.

Given that the chief business and chief facilities officers may now have a common vision of the positive potential for RR-USA on their campus, the Getting to Go! program should be considered an increasingly urgent priority. At the recent University of Houston RR-USA executive briefing, I took the opportunity to note some basic components of organizational and procedural activity that were presented by our faculty and participants. While not exhaustive, some of these items follow in a list structured to focus on the viewpoint of the chief business officer.

### **Set Goals**

- Utilize the RR-USA principles



- Keep the money and reallocate
- Seek higher energy efficiencies
- Plan on improved campus work and study environments
- Put emphasis on environmentally responsible outcomes
- Adopt a leadership posture while encouraging bottom up actions
- Expect measurable results

### **Pick Your Team**

- Identify a high quality project team
- Provide with support and resources
- Encourage the champion(s)
- Express public support and appreciation
- Insist on high quality outcomes
- Tap into the resources of EPA, Energy Star Buildings and DOE/Rebuild America
- Consider forming strategic partnerships with government, local industry, school districts

### **Create a Business Plan**

- Adopt a holistic approach to reinvestment in the utility infrastructure and the overall plant asset portfolio
- Leverage your resources to engage in a large-scale, high-impact endeavor
- Consider modes of funding without creating debt
- Know your customers so as to harness their interest and action
- Document well so as to make the case for the chief business official as well as the trustees

### **Gather Legal and Purchasing Assistance**

- Encourage the full partnership of the legal and purchasing staff early in the process
- Hire consultants as necessary to assure success
- Understand the potential impacts of the deregulation statutes and tariff rules in your arena of activity
- Learn from the successes and mistakes of others

### **Choose Your Strategic Partner(s)**

- Enter into a qualification and selection process that will assure the best combination of experience, skill, service, and price in the selection of an energy services company (ESCO) or other partner. Base the selection process on as much objective data as possible, and then select a firm with whom you can form meaningful business and trust relationships for the life of the contract
- Sign a letter of understanding or contract, and then undertake the measurements and engineering analysis



*The Texas Session of Resource Reallocation-Utility Strategic Assessment*



### **Measure**

- Establish a baseline, then determine how all future measurements and analysis will be undertaken.

### **Understand the Proposals/Risks/Deals**

- Understand the proposals and deals
- Don't assume—ask lots of questions
- Analyze your risks, both in action mode and for inaction

### **Go Public, Lead for the Long Haul**

- Go for the long haul, be persistent, stay flexible, keep going, count the money. 🏰



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# Membership Matters

## Surviving and Thriving

by Dina Murray

The popularity of the new television show, *Survivor*, soared during its run, surpassing the numbers of viewers of the year's other blockbuster television hit, *Who Wants to Be a Millionaire?* There were talks about who made the cut this week around the watercooler and on radio shows. This newfound genre of voyeuristic television is giving rise to similar programs to meet the hunger of audiences for watching the daily habits of others.

Whether you were a fan of the show or not, you are a survivor on a daily basis without even probably knowing it. Of course, you have not signed a pact of secrecy about your job or plan to appear on the morning talk show circuit after your island experience, but you do face many of the same obstacles that the two *Survivor* tribes faced. While no one on your staff will be forced to leave the campus for not being the most resourceful person of the day, their actions do have effects that echo throughout the campus.

What makes the skills of an island survivor transferable to the facilities arena? Because budgets are regularly reduced, educational facilities officers are left with the monumental task of making due with less, having to pool skills and creativity to complete jobs and stay afloat. It takes a combination of hard and soft skills to be competent and successful in educational facilities management. This skill set has definitely changed by definition

considering that leadership was not held with the same regard as communication skills until recently. Facilities professionals must be competent in their technical skills, knowledge of complex procedures, and application of widely accepted paradigms.

It is now common knowledge that management and leadership are not the same thing. Successful APPA



members know this to be true. Years ago, this would not have stirred enough interest to become a subject for *Facilities Manager*, but times have changed. The magazine now regularly features articles on leadership, management, measurement tools, and customer service.

Besides the magazine, APPA reinforces its members' skills by offering the Institute for Facilities Management, the Professional Leadership Center, and APPA's Educational Conference. The Franklin Covey Workshop, including the 360-degree profile review, is also offered through

the Leadership Academy or can be requested as a stand-alone workshop on an academic campus.

Would you be a survivor or a cast-off if your leadership skills were reviewed today? What have you done lately to bring your skills up to date? Have you participated in any of the programs listed above or do you review leadership books that may be of interest to you listed regularly in "The Bookshelf" column in *Facilities Manager*? Even a visit to your local or online bookstore can help keep you up to speed on new topics in leadership.

Besides the leadership aspect of the programs mentioned above, APPA provides its membership education that in most cases is not readily available through other resources. The *Resources in Facilities Management* catalog offers books, periodicals, online resources, and other materials to both members and nonmembers. APPA wants facilities management professionals to have the most current information that they will need to succeed on their campus. And if you're ready for new challenges or a change of scenery, APPA offers *Job Express* to help you achieve those goals in a new environment.

Plain and simple, customer service cannot be ignored as a measurable denominator of any job performance. Most people practice customer service without even knowing it. Customer service is not a fancy or complicated discipline, but disregard any aspect of it and the rumbling of discontent will be heard coming from your customers, students, and administration. Most of the time there is no immediately recognizable reward for good customer service. The real reward is knowing that the job was well

**Dina Murray is APPA's director of member services. She can be reached at [dina@appa.org](mailto:dina@appa.org).**



done, and that your next performance review recognizes your skills.

Everyone talks about teamwork, but is it theory or practice on your campus and in your professional life? Each week on *Survivor* one member of a team was voted off the island for one infraction or another, ranging from poor communication with others, lack of survival skills, attitude, or, most importantly, lack of teamwork. Obviously, some participants took this very seriously each week to beat the odds of dismissal off the island. How do you let your staff know that "teamwork" is not just a concept to you? To paraphrase Hillary Clinton, "It takes a facilities team to have a functioning campus." In order to stay afloat, be bankable, or be deserving of a promotion, all businesses, whether profit or

nonprofit, must work at a capacity above merely functioning just to compete in a world that moves faster and changes at a speed of technological obsolescence.

Island inhabitants have only indigenous materials to survive on a daily basis. Palm fronds and other plants were used to make huts and sticks were sharpened to make spears in order to catch dinner. Educational facilities managers are constantly faced with making due with less. If it's not the budget, it's stretching staff, or reduced education and travel appropriations. Regularly, you and your staff make decisions on capital renewal and deferred maintenance. It's all about making the soundest choices for today and in the future based on the information at hand.

The *Survivor* website featured a brief description of each tribe member. Those who watched the show talked about their favorite person as well as the one they thought will be the ultimate survivor. Some would rally with a participant who they thought had skills like their own and therefore their own survival rate would not be in question. The popularity of the show rests in our innate need to survive, to achieve, and ultimately to come out on top. APPA wants you to achieve your career goals as educational facilities professionals by not just surviving but thriving in an atmosphere that encourages your professional growth through education and leadership. 📌

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# New Products

New Product listings are provided by the manufacturers and suppliers and are selected by the editors for variety and innovation. For more information or to submit a New Products listing, contact Gerry Van Treeck, Achieve Communications, 3221 Prestwick Lane, Northbrook, IL 60062; phone 847-562-8633; e-mail [gvtgvt@earthlink.net](mailto:gvtgvt@earthlink.net).



**Bison, Inc.** introduces the new Coastal Ultimate playground basketball system. Rust and corrosion of outdoor equipment add to maintenance expense and replacement costs, and are extremely unsightly. The Coastal Ultimate is a galvanized basketball system that will stand up to a lifetime of rugged basketball in even the toughest of conditions—guaranteed-unconditionally. For more information call Bison Inc. at 800-247-7668.

**3M Commercial Care** announces the introduction of a complete Restroom Cleaning System composed of seven new



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**Sherwin-Williams** new Pro Classic Interior Alkyd Satin is smooth as silk and tough as nails. A good solution for those that seek a long-lasting finish with strong aesthetic appeal. Offering just the right degree of luster (20-25 units of gloss) with no risk of hard shine, Pro Classic Alkyd Satin is ideal for both trim and wall applications. For 130 years Sherwin-Williams has satisfied your coating and color needs. Visit Sherwin-Williams on the World Wide Web at [www.sherwin-williams.com](http://www.sherwin-williams.com).



**Hanny Reels** is proud to feature the Hanny GH1100 hose reel. Portable and ruggedly manufactured to sustain the roughest of working conditions, the GH1100 features a steel handlebar and one-piece foot and rubber-tired wheels. An adjustable spring drag device is used to brake the reel, and payout and rewind are made easy with lifetime bearings and an adjustable tension feature. Contact Hanny Reels, toll free, at 877-GO-REELS.



**Hayward Industrial Products, Inc.** offers a new feature at their website, [www.haywardindustrial.com](http://www.haywardindustrial.com), that lets visitors



easily determine the water hammer or shock pressure potential of any piping system under consideration. Now online visitors can easily answer the question, "is my piping system at risk due to water hammer?" The au-

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# The Bookshelf

Book Review Editor: Dr. John M. Casey, P.E.

Preparing this set of reviews for The Bookshelf reminded me of the changes that have taken place in our profession since I foolishly agreed to do my first reviews for the old APPA Newsletter in 1983. Actually, those two reviews covered books—one on laboratory ventilation, the other on design of biomedical research laboratories—that are still useful today (the books that is, not the reviews). During those 18 years I have seen tremendous changes take place in the academy, from asbestos to outsourcing to telecommunications, with stops in between for energy management and retrenchment. Our association has matured and expanded, becoming an international group representing all educational facilities managers. To reflect that, we have tried to select resources for review which have potential appeal for a majority of our readers, and the three selections below should be interesting for all APPA members.

—JMC



John Casey is manager of the engineering department of the physical plant division at the University of Georgia, Athens, Georgia. If you are interested in reviewing a book for The Bookshelf, contact Casey at [jcasey@arches.uga.edu](mailto:jcasey@arches.uga.edu).

## Small-Scale Cogeneration

**Handbook**, by Bernard F. Kolanowski. Lilburn, Georgia: Fairmont Press, 2000. 167 pp., hardcover.

**Cogeneration** projects involving "package" units, with electrical energy outputs in the 150 KW and smaller range, may have application in many APPA institutions. Indeed, the rising costs of energy and the threat of brownouts may be the one-two punch that sends many facilities professionals scurrying for more information on this type of equipment. In theory, cogeneration can simultaneously produce both electrical energy and heat energy at a cost which is lower than would occur if each were produced independently. This may sound too good to be true, but in many cases it can and does work. Imagine this: save money, have standby capacity, and be "green" (less total fuel is consumed), all at the same time. This would surely be a facilities manager's idea of heaven.

But wait! Cogeneration is not for everyone. To find out if your facility is a candidate for a small-scale package cogeneration system, I suggest you read Bernard Kolanowski's *Small Scale Cogeneration Handbook*. This is a neat little book with information which will help facilities managers decide whether or not to devote additional time and effort to answer the question, "Should we install a small cogeneration unit?" Several chapters, especially those covering both the potential uses and pitfalls of these systems, help present a balanced guide to readers in the search for the answer.

This handbook is not a nuts-and-bolts design guide, however, nor will it address specific energy costs in a

given area. Also, one of the chapters covering small-scale cogeneration unit manufacturers contains references to an unfortunate personal incident in the author's experience which seems inappropriate for inclusion in the text. In spite of this, facilities managers should consider purchasing this book if installation of a small cogeneration unit is being considered for his or her campus.

\*\*\*

**Fundamentals of Air Conditioning Systems (Second Edition)**, by Billy C. Langley. Lilburn, Georgia: Fairmont Press, 2000. 399 pp., hardcover.

**Air conditioning** systems are required in many buildings on most campuses throughout the world, so a well-written technical book on the subject could provide valuable information to busy facilities personnel. Before reviewing *Fundamentals of Air Conditioning Systems*, I wondered just how many books are available on this important topic. A cursory review of publications by the subject search term "air conditioning" revealed the following number of matches: Amazon.com - 792; Georgia Institute of Technology Library - 427; University of Georgia Library - 75. Obviously, there are a lot of air conditioning books in and out of print; this review, then, will not attempt to rank this book with the others, but merely report on the quality of its contents.

I found *Fundamentals* to be a no-frills publication, with emphasis on practical applications for smaller direct-expansion refrigerant systems. Dr. Langley's book is very easy to read, which is an indication of his experience as a writer; he is the author of



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over 20 textbooks, and most of these deal with air conditioning and refrigeration. The highlight of the book is the first chapter titled "Air Conditioning and Psychrometrics." In this, Langley begins the book with "The basic principles of air conditioning are misunderstood by most people, even by many in the field," and then devotes 35 pages to explain these principles in laymens terms. Also included in *Fundamentals* is a thorough explanation of psychrometrics, using a psychrometric chart to show how the state of the air changes as it passes through an air conditioning system. Another chapter, an addition to the book for this second edition, concerns measurement and adjustment of airflow, providing information to solve those knotty "not enough" or "too much" airflow problems which we have all encountered.

*Fundamentals of Air Conditioning Systems* is a well-written book, aimed at the small building and light-commercial section of the air conditioning industry. I would not hesitate to use this as a reference textbook in a non-calculus-based air conditioning and refrigeration course at the post-secondary level. I recommend this book to facilities managers who need a no-nonsense reference for smaller air conditioning systems.

\*\*\*

## **The National Clearinghouse for Educational Facilities (NCEF).**

Washington, D.C.: The National Library of Education.

In the May/June 2000 issue of *Facilities Manager*, I reviewed the Educational Resource Information Center (ERIC) database. ERIC is a repository for almost one million publications covering education. The National Clearinghouse for Educational Facilities (NCEF) is an affiliated Clearinghouse of ERIC, and is an information resource for planning, designing,

building, operating and maintaining primary and secondary (K-12) schools. NCEF, created in 1997, is funded by the U. S. Department of Education, and managed by the non-profit, non-governmental National Institute of Building Sciences.

NCEF has assembled valuable facilities-related data and literature in an uncluttered web site. The Information Resources Section lists the major features of the site: NCEF Publications (available for downloading), Construction Data, Additional Web Sites (links to hundreds of sites related to facilities management), and Hot Topics. The latter includes links to over 60 facilities-related annotated bibliographies. For example, the topic "Space Planning" includes 11 full-text online publications, 7 references to books and other media, and 9 references to journal articles. Three of the journal articles on space planning are from *Facilities Manager*—Ira Fink's two-part work "Throwing Space Standards Out the Window" and the Harvey Kaiser and Eva Klein article "Space Standards: Some Recent Lessons"—are valuable contributions to this site. In addition, many of the topics have links to other websites related to that topic.

APPA managers from member institutions in the K-12 arena are especially encouraged to use NCEF as often as necessary. In addition, post-secondary facilities professionals will also profit from visiting this website. Most of the over 60 "Hot Topics" cover specific problem areas which do not discriminate between K-12 and higher education facilities. NCEF has recognized this fact by presenting information from predominately higher education, in addition to K-12, publications to its visitors. All are urged to logon to NCEF at [www.edfacilities.org](http://www.edfacilities.org) and to help yourselves to valuable facilities management information free of charge. 🏠



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# Coming Events

## APPA Events

For more information on APPA seminars and programs, visit our website's interactive calendar of events at [www.appa.org/news/](http://www.appa.org/news/).

**Jan 28-Feb 1, 2001—Institute for Facilities Management.** Newport Beach, CA.

**Feb 12-13—The Emergent Building Technologies Conference: Integrating People, Technology & Design.** Las Vegas, NV. Sponsored by APPA, CSI, and NSCA. Contact: Construction Specifications Institute at 800-689-2900, or visit [www.emergentbuildingtech.com](http://www.emergentbuildingtech.com).

**Jun 17-22—Leadership Academy.** Fort Lauderdale, FL.

**Jul 22-24—Moving Beyond Boundaries: APPA 2001 Educational Conference & 88th Annual Meeting.** Montreal, Quebec, Canada.

**Sep 16-20—Institute for Facilities Management.** Scottsdale, AZ.

**Jan 13-19, 2002—Institute for Facilities Management.** Tampa, FL.

**Jun—Leadership Academy.** Date and location to be determined.

**Jul—APPA 2002 Educational Conference & 89th Annual Meeting.** Phoenix, AZ.

**Sep 8-12—Institute for Facilities Management.** Norfolk, VA.

## APPA Regional Meetings

**Sep 22-26—CAPPA 2000 Regional Meeting.** Overland Park, KS. Contact: Robin Boley at 913-469-3821 or [rboleay@jccc.net](mailto:rboleay@jccc.net).

**Sep 23-26—RMA 2000 Regional Meeting.** St. George, UT. Contact: Craig Bohm at 801-581-5609 or [cbohm@campplan.utah.edu](mailto:cbohm@campplan.utah.edu).

**Sep 24-27—AAPPA/ATEM Annual Conference.** Melbourne, Victoria, Australia. Contact: Denis Stephenson at 613-9479-2077 or [d.stephenson@latrobe.edu.au](mailto:d.stephenson@latrobe.edu.au).

**Oct 1-3—PCAPPA 2000 Regional Meeting.** Long Beach, CA. Contact: Hildo Hernandez at 818-677-2325 or [hildo.hernandez@csun.edu](mailto:hildo.hernandez@csun.edu).

**Oct 7-10—SRAPPA 2000 Regional Meeting.** Nashville, TN. Contact: Sam Polk at 615-963-5687 or [spolk@picard.instate.edu](mailto:spolk@picard.instate.edu).

**Oct 8-11—MAPPA 2000 Regional Meeting.** Ann Arbor, MI. Contact: Valerie Amo at 734-764-3400 or [vamo@umich.edu](mailto:vamo@umich.edu).

**Oct 8-11—ERAPPA 2000 Regional Meeting.** Burlington, VT. Contact: Tim Pedrotty at 802-654-2398 or [tpedrotty@smcvt.edu](mailto:tpedrotty@smcvt.edu).

## Other Events

**Nov 4-7—PGMS Annual Conference & Green Industry Expo.** Indianapolis, IN. Contact: Professional Grounds Management Society at 800-609-7467 or [www.pgms.org](http://www.pgms.org).

**Dec 15-17—Improving America's Schools.** Chicago, IL. Contact: U.S. Department of Education at 800-203-5494 or [www.ncbe.gwu.edu/iasconferences](http://www.ncbe.gwu.edu/iasconferences).

**Jan 28-29, 2001—CEFPI's 8th Annual Technology Conference.** Scottsdale, AZ. Contact: Council of Educational Facility Planners at 480-391-0840 or [www.cefpi.org](http://www.cefpi.org).

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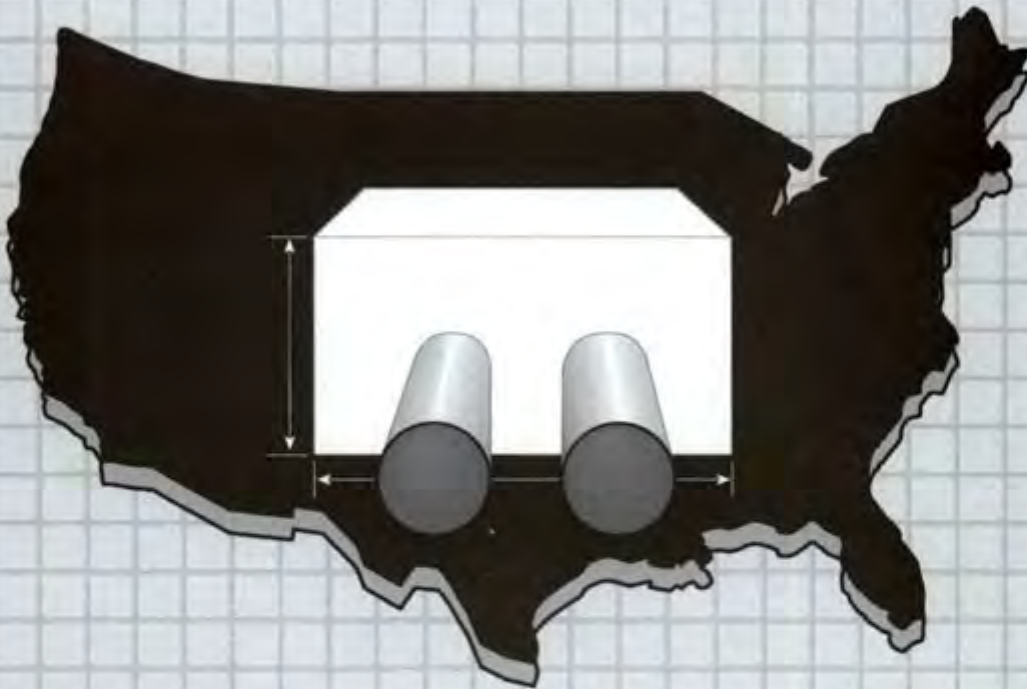
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