PUPN
PRIVATE UNIVERSITY PRODUCTS AND NEWS
NOVEMBER 2023
PUPNMAG.COM

CONSTRUCTING **ENERGY EFFICIENT** CAMPUS BUILDINGS

EMERGENCY EYEWASH AND SAFETY SHOWER BEST PRACTICES

A NEW (AND BETTER) APPROACH TO **WATER INTRUSIONS**

THE ROLE OF WINDOWS AND DOORS IN ENERGY-EFFICIENT CONSTRUCTION

THE IMPORTANCE OF **MOISTURE METERS AND THERMO-HYGROMETERS**

The Power of Story

AT XAVIER UNIVERSITY OF LOUISIANA

SportsArt

INSPIRED PERFORMANCE. MEANINGFUL SUSTAINABILITY.

G690 Verde Treadmill

SERVE TODAY'S GREEN-MINDED STUDENTS.

SportsArt and ECO-POWR™ Status offer something no other full line of cardio can—the ability to capture human exertion and turn it into clean electricity. Now your rec center can align campus sustainability goals with student lifestyle and fitness expectations. Student-run environmental initiatives could even help offset the cost, making it easier and more affordable to bring ECO-POWR™ Status to your campus.


G576U Upright Cycle


G876 Elliptical


G576R Recumbent Cycle

See how sustainable recreation can work for your university.

LIGHTER

than the competition

FASTER

than you've ever gone before

SMARTER

than the average manual vacuum

learn more at hammerheadvac.com

RECRUITER 2

WOOD SPORT LOCKER

CUSTOM INSTALLS

BENCHES

Get Your Team GAME READY!

SUPERIOR®

AMERICA'S MOST COMPLETE LOCKER LINE®

Metal, Plastic, Phenolic & Wood Lockers

+MEDSAFE
ANTIMICROBIAL FINISHES
Our Metal Lockers are available with MedSafe™ antimicrobial finishes with Microban®, formulated to protect against bacteria, mold, yeast & mildew for up to 20 years! Very beneficial for educational, healthcare, food processing and other hygiene conscious environments.

800-776-1342

LIST INDUSTRIES INC.

info@ListIndustries.com

ListIndustries.com

PUPN UNIVERSITY PRODUCTS NEWS
2022 DEAN'S LIST AWARD

Contents

FEATURES

COLUMNS

COVER AND PHOTO ABOVE COURTESY XAVIER UNIVERSITY OF LOUISIANA

SPOTLIGHT / ON OUR COVER

FACILITIES & MAINTENANCE

Editor's Letter

NOVEMBER 2023

Dear Readers,

Welcome to the annual construction issue of *Private University Products and News*, where we delve into the dynamic world of campus development, sustainability, and innovation on your esteemed private college and university campuses. This year's edition is particularly special as we focus not only on the physical transformation of these educational havens but also on how these changes align with our commitment to a greener, more sustainable future.

In the realm of academia, the physical environment plays a crucial role in shaping the overall student experience. Your campuses are not just spaces for learning; they are communities that nurture intellectual growth, foster creativity, and cultivate a sense of belonging. That's why we are proud to present the strides your institutions are making in construction and renovation, with a keen eye on sustainability.

One of the key areas of focus in this issue is energy efficiency. Our campuses are investing in state-of-the-art technologies to minimize energy consumption and maximize renewable energy sources. With earth-friendly initiatives including energy-efficient technologies, eco-friendly materials, solar panels adorning rooftops, and rainwater-harvesting systems integrated into the landscape, our campuses are becoming living examples of how sustainable architecture can seamlessly merge with educational excellence.

This year's featured construction projects showcase the integration of smart lighting, advanced HVAC systems, and other energy-efficient building designs. Institutions making use of these advances are not only reducing their environmental impact but also setting the stage for long-term operational cost savings.

Lab safety equipment is another crucial issue covered in this edition. As the world faces new challenges, our commitment to providing a safe and secure learning environment has never been more steadfast. Campus construction and renovation plans include cutting-edge laboratory facilities equipped with the latest safety measures. From advanced ventilation systems to state-of-the-art emergency response protocols, our campuses are ensuring that students can engage in hands-on learning experiences without compromising their well-being.

This annual construction issue serves as a testament to your collective commitment to shaping educational spaces that are not only architecturally impressive but also environmentally responsible. The transformative projects detailed inside showcase how your private colleges and universities are leading the way towards a more sustainable future. As we embark on this journey of growth and progress, we invite you to explore the pages of this magazine and witness the remarkable evolution of our academic spaces.

Thank you for your continued support and interest in the enriching stories that unfold within the walls of your campuses.

Sincerely,

Ed Bauer
Publisher

Ed Bauer
Publisher/Editor-in-Chief
ed@pupnmag.com

Chris Gannuscio
Business Development Manager

Amanda Love Day
Regional Marketing Director

Rosalind Fournier
Copyeditor

Hilary Harkness
Creative Director

Lisa Gibbs, EdD
Cynthia Mwenja, PhD
Staff Writers

Matthew Fuller
Grete Heimerdinger
Ryan Pfund
Tim Poskin
David Vinson
Contributing Writers

Circulation
circulation@pupnmag.com

FLAHERTY MEDIA, LLC.

PUBLISHED BY FLAHERTY MEDIA
PO Box 1903, Pelham, AL 35124
Toll Free: 800-705-5280
Fax: 855-239-8093

Improve Equity and Quality with SportaFence

SportaFence is the only patented professional grade wheeled fencing system that enables your facility or field to support mens, womens, boys and girls baseball or softball regulation field dimensions in a single day. Set-up can take as little as one hour. Most importantly, SportaFence improves the equity and quality of gameplay for all players while also providing the same level of safety as most traditional permanent fencing solutions.

SportaFence offers both wheeled and non-wheeled options in heavy-duty portable chain-link fence panels. Constructed of durable galvanized steel with eight-gauge coated chain-link fence material. Connectors secure panels together to form one continuous fence. Legs collapse for easy storage.

FOR MORE INFORMATION:

Phone: **888.201.2578**
Online: **sportafence.com**
Email: **chad@sportafence.com**

SPORTAFENCE

The Power of Story at Xavier University of Louisiana

BY CYNTHIA MWENJA, PhD

Monica Pierre, Assistant Professor of Practice in the Department of Mass Communication at Xavier University of Louisiana, has already filled many roles in her own life's story, including those of author, speaker, executive producer, Emmy award-winning journalist, and broadcaster. She continues to garner recognition and honors: the documentary *Battlegrounds: The Lost Community of Fazendeville* was recently nominated for a Suncoast Regional Emmy; she was executive producer for the project. She attended the Television Academy Foundation's 2023 Media Educator Conference last month as a recipient of the Alex Trebek Legacy Fellowship. In the classroom and beyond, the driving force behind all of Pierre's work is her recognition of the immense power held within the stories that people shape and share about their lives.

Teaching

As Professor of Practice at Xavier University, Pierre brings the skills she has honed over years as a journalist to the classroom. She teaches radio and television announcing along with podcasting. Her podcasting assignment asks students to research, write, produce and edit a fifteen-minute podcast. Calling podcasting "an amazing, powerful tool," Pierre says this assignment "gets them into the mix of audio production"; it also helps them to "embrace the idea that they are storytellers." After completing this assignment, the students can choose to expand their projects beyond the class; they understand the process and can see what's possible through the medium. Pierre reminds her students that they have the responsibility of going "beyond what they're comfortable with." In her position at Xavier, Pierre's goal is to "work with students to get them on the radar" so that they can "get in the door and effect change."

Fazendeville Documentary

Another way of effecting change is to recover lost stories. As executive producer of *Battlegrounds: The Lost Community of Fazendeville*, Pierre played a big role in recovering the story of Fazendeville, Louisiana. Located in St. Bernard Parish, the community was established by freed Black people who bought the land from a freed person of color, Jean Pierre Fazende. The city grew over the next 100 years, but residents were forced out in 1964 when the National Park Service obtained the land in order to expand the Chalmette National Historic Park. After receiving only pennies on the dollar for their properties, many of the displaced residents moved to the Lower 9th Ward of New Orleans; they and their descendants faced further displacement as a result of Hurricanes Betsy in 1965 and Katrina in 2005.

Recently, a white descendent of Fazende found out about the community's history and wanted to get the story told. WLAE-TV | New Orleans Public Television took up the project and asked Pierre to be involved. She agreed, with the stipulation that the project avoid whitewashing the events or framing them in way that demeaned the community's residents. The finished project, Pierre states, demonstrates the power in story. The former residents of Fazendeville did not want to regain the land—they've moved on—but they wanted to document their story and show that their experiences are important. Pierre remarks on the honor she felt when interviewing the Fazendeville residents and learning about their self-sustaining community where the church doubled as a school and residents grew their own food.

"I know that feeling and the pride that you have—even though you don't have much, it was your responsibility to take care of it," Pierre says. Noting that "there are Fazendevilles everywhere," Pierre points out that these projects are important in preserving full histories of a place and in honoring those who have gone through the devastating experience of having their communities destroyed.

Multi-faceted Speaker and Performer

Pierre also displays "extraordinary" talents as an event speaker and emcee, says small business strategist and fellow speaker Myra

PHOTO COURTESY XAVIER UNIVERSITY OF LOUISIANA

Corrello. The two met twenty-three years ago through the National Speakers Association. After Pierre served as emcee for a major event that Corrello organized, their relationship developed into one of mutual professional support, as well as an "extraordinary friendship." While their backgrounds might seem quite different on the surface—Corrello grew up in a working-class white family in eastern Kentucky and Pierre was a Black sharecropper's daughter in Louisiana—they have been amazed to find the many similarities in their families of origin. Their friendship demonstrates the ways that sharing stories can strengthen the bonds between people, even when they might seem very different from each other on the surface.

Corrello notes Pierre's wide variety of accomplishments. "No matter how you know her, there are ten other facets that you don't see," she says. "She has spent her entire career, really, being a journalist; she has worked tirelessly to put everyone else in the spotlight. She elevates what is good about everyone else, but her own brilliance—she's been less open about bringing that forward." Corrella is happy to see Pierre receive her recent recognitions and begin to "embrace her own talents and power," observing that when Pierre takes the stage—as emcee or in her one-woman shows—"she can walk out on the grandest stage and bring all kinds of emotion to the audience."

Story Maker Academy

Pierre inspires and guides students in her Story Maker Academy to develop their own talents as speakers. Pierre's Story Maker Academy is a six-month program in which participants identify a story, put together a TEDx-style talk, and present their speeches in a graduation showcase with a live studio audience. Pierre sees amazing transformations in all of the graduates; she says that many of them start the process with small goals, such as using their stories to be more effective at networking. By the time they take the stage at the end of the process, however, many envision themselves as speakers on bigger stages.

As she has worked with business and thought leaders in the Story Maker Academy she established in 2022, Pierre has seen the "power of a story taking on a life of its own." She states that leaders often think that they don't have an engaging story and may overlook the strengths of

continued...

Pierre's Story Maker Academy is a six-month program in which participants identify a story, put togehter a TEDx-style talk, and present their speeches in a graduation showcase with a live studio audience.

PHOTO COURTESY XAVIER UNIVERSITY OF LOUISIANA

the stories they can shape from their personal experiences. Pierre tells all of her students, however, that they "must be the guardians and gatekeepers" of their stories, saying that people "cannot afford to let others tell [their] stories; they must be "bold and brave" in doing that work for themselves.

Pierre recounts the experience of one student who thought she didn't have a big or important story to tell. Her husband had passed away, and she was having trouble getting out of bed. She heard about a circus camp, though, so she took lessons in circus arts. While she didn't end up joining the circus, her story—"Sequins, the Circus, and Me"—became a "tiny" story with an outsized impact on the audience.

Story Maker Academy Impact

Graduates of the Story Maker Academy feel a strong and lasting impact from the experience. Danielle Detiege, entrepreneur and luxury brand coach—and Xavier alum—met Pierre

in person at a Fidelity Power workshop focused on empowering women business owners. At the time, Detiege felt she was "meeting a mentor who didn't know she was a mentor." Pierre's presence as a journalist and radio/ television personality "embodied excellence" for Detiege during her formative years; she particularly appreciated the encouragement and advice given during Pierre's "Monica's Minute" spots. As a self-described introvert, Detiege appreciates the way Pierre has made her comfortable in knowing she has both a voice and something important to say.

Detiege joined the Story Maker Academy, where she saw even more clearly Pierre's talent for making people feel comfortable and "creating avenues for people to share stories; she has a quiet way of getting you where you need to go." After only a few weeks in the Academy, Detiege began to imagine herself speaking to bigger audiences. The graduation showcase for her cohort was held at Xavier, and she remembers that "All of us felt like we

continued...

PHOTO COURTESY XAVIER UNIVERSITY OF LOUISIANA

were celebrities on that stage." She now has a "calling to serve the community and serve it in bigger ways." Pierre's storytelling mentorship comes from "a place of encouragement and empowerment," and Detiege says that her enthusiasm for her craft motivates everyone she works with.

Another Xavier alum, Ronicka Briscoe, PhD—CEO of Winning on the Road, LLC—also characterizes Pierre as an exemplar who "broke glass ceilings—even cement ceilings—as a journalist in a time when not many were women, and fewer were Black." Describing herself as a "fangirl," Briscoe not only admires Pierre's record as an Emmy-award winning journalist who is still winning accolades, but she also appreciates that Pierre's priority is "continuing to help the next generation grow." While Pierre could do any number of things, Briscoe says, she has "situated herself at an HBCU" and started the Story Maker Academy so that young people "have the courage and authority to speak" in any arena. Briscoe also participated in the Story Maker Academy, where she felt "super comfortable" throughout the experience of learning to craft and tell stories. By the time of the graduation event, she remembers that she was "so well-prepared and ready; we had skills and we had practiced."

As the Chair of the Department of Education at the University of Holy Cross in New Orleans, Briscoe sees the strengths that professors of practice like Pierre can bring to the classroom. "There is sometimes a disconnect between the classroom and real life," Briscoe says. As a "decorated practitioner," Pierre bridges that divide for her students, and "years of experience have earned her respect." While Briscoe acknowledges that higher-education administrators must consider accreditation requirements when staffing classes, she calls attention to the value of hiring someone like Pierre "who has actually done the work." Briscoe says that "we need to bring knowledgeable people to higher ed; we need to think about this generation and where they see value, and we need to ensure diversity" in our classrooms.

Whether in a university classroom or community forum, Pierre is that knowledgeable person who embodies skills and experiences that her students value, and she teaches her students real-world skills using high-impact practices. Drawing on her inspiring array of experiences and talents, Pierre mentors others to more effectively participate in that most human of experiences: telling stories. The stories they craft can change the world.

ABOUT THE AUTHOR: Dr. Cynthia Mwenja teaches Composition and Rhetoric at the University of Montevallo.

INSPIRED TEC

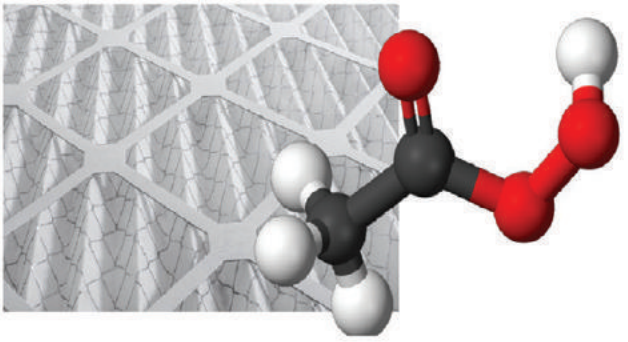
TRANSFORMING
HVAC FILTERS

Improve Indoor Air Quality
Improve HVAC Performance
Lower cost of operation
Extend the life of the equipment

Inspired TEC is proud to introduce our newest transformative technology into our facility solutions for improved health and wellness and lower cost in your facility:

Patented **ODOGard™** technology.

Our **ODOGard™** HVAC filters capture and destroy pollutants including virus and bacteria at the molecular level, changing their structures and making them inert.



ODOgard™ offers:

- Better Level of Controls
- Lower Energy Costs
- Less Stress on HVAC Equipment

99% more effective than carbon filters

30% less expensive than carbon filters

140% more reduction in airborne VOC

18% more sustainable than MERV-13 filters

PUPN — 2022 DEAN'S LIST AWARD

Inspired TEC
Transformative Facility Solutions

Better Health, Lower Cost, Higher Sustainability

Schedule a consultation today @ inspiredtecllc.com

PHOTO COURTESY LIGNOMAT

FACILITIES & MAINTENANCE

Why Moisture Meters and Thermo-Hygrometers are Essential for Successful Wood Floor Installation

BY GRETE HEIMERDINGER

Moisture can have a large impact on the beauty and sustainability of anything made out of wood, from cabinets and furnishings to wood flooring. It also affects other hygroscopic, water-absorbing materials in the building envelope such as drywall, ceiling panels, carpets, etc. Before the installation of a wood floor, the team will need to examine building conditions. If there is too much moisture in the sub floor in a newly erected building, or after water intrusions in older buildings, the excess moisture will be released into the building—and the last place you want to see water seeping is onto your new wood floor.

To avoid that risk, the first step before proper floor installation is making sure all materials surrounding the floor are dry from the concrete substrate to the roof. Two instruments are helpful with accomplishing that task: a moisture meter for materials and a thermo-hygrometer for air, relative humidity, and ambient temperature. If concrete slabs are to be measured, the Lignomat RH system follows the ASTM F2170 procedure for measuring moisture in concrete slabs before installing resilient floor coverings. The floor manufacturers also list conditions for a successful floor installation in their installation manual. To keep the floor manufacturer's warranty, the recommendations should be followed.

Thermo-Hygrometers

When choosing a hygrometer, accuracy rating and humidity range are important. Standard off-the-shelf hygrometers usually have an accuracy rating of +/- 5% for relative humidity

and +/-20F for temperature. In general, the lower the moisture content (overly dry, below 30%) or higher (too moist, above 65%) the less accurate standard hygrometers become. Lignomat makes an RH thermo-hygrometer probe which is +/-2% accuracy for relative humidity between 10% to 90% and +/-10F for temperature and can be used as an add-on instrument.

Moisture Meters

With or without pins: There are two choices when using a moisture meter. Both technologies have some merit, and depending on the task at hand, one or the other will better suited. Of course, the best course of action would be acquiring a moisture meter which can do both.

Pin or Pinless?

• **Pinless moisture meters:** In theory, pinless moisture meters use electromagnetic wave technology, which measures the density in a three-dimensional field underneath the measuring pad. The density of the same block of wood changes if there is more or less water present. The meters indicate the average moisture content in the measuring field, with the section closer to the surface having a larger impact. If the moisture varies, the pinless or non-invasive meters will show the average. For more accurate moisture percentages, the measurements have to be corrected for different wood species.

Pinless moisture meters are placed on top of a flat surface and indicate the average moisture in the measuring field below the measuring pads. The extent of the measuring field is determined by the maximum measuring depth and the size of the measuring pads.

• **For wood floors:** Measurements are fast and allow for a large number of floor planks to be moisture tested n a short time, leaving no visible marks (including no pin holes). Pinless moisture meters work best on flat surfaces. Floor planks are always flat and the meter sits perfectly on any smooth or hand-scraped surface. The thickness of floor planks also fits the geometry of most dual-depth pinless moisture meters. Dual-depth moisture meters such as the Ligno-Scanner SDM measure ¼" and ¾" deep. Keep in mind that indicated moisture values may be incorrect when measuring engineered floor planks composed of a hardwood wear layer and core layers of different materials. When measuring moisture in materials other than solid hardwood, the best results are delivered when you have a sample with a known moisture content. Then, after finding a value for dry, all other values can be compared to the dry sample.

A pinless moisture meter is the ideal choice to check moisture when the floor is delivered, throughout the acclimation and installation process, and later on when the floor is in use. There may be some changes in moisture content during acclimation. However, after the floor is acclimated to the

continued...

ambient conditions, there should be no more changes. If the moisture remains unchanged, the floor is dimensionally stable. The floor planks will not move, and no warping or cupping occurs. Continuous moisture checks even after installation can prove no changes or warn that moisture is absorbed or lost by the floor planks.

Note: Most floor manufacturers indicate that the acclimation and installation should take place under the same ambient conditions that are normal for the space when in use. Doors and windows should be installed and closed. The air conditioner or heat should be running. Acclimation and installation only make sense if these conditions are warranted. If you are crisscrossing the conditions below, a wood floor is not happy, even when the temperature is a comfortable 720F. The moisture meter and thermo-hygrometer will indicate if the floor is stable:

- 25% relative humidity stable moisture content is 5.5%
- 35% relative humidity stable moisture content is 7%
- 45% relative humidity stable moisture content is 8.5%
- 55% relative humidity stable moisture content is 10%
- 65% relative humidity stable moisture content is 12%

With pins: In theory, pin moisture meters measure the electrical resistance between two metal pins kept a certain distance apart. The electrical resistance changes with the moisture content of the wood. If moisture varies within the small segment of the non-insulated part of the pins, the highest value is indicated. That means if the uninsulated part of the pin touches a wet surface, the indicated moisture values will be high.

Wood species corrections are necessary to obtain accurate moisture percentages. Most pin moisture meters have built-in corrections for different wood species. If lumber is hot or cold, the electrical resistance in the wood changes, so temperature correction is necessary for hot or cold lumber.

In practice, the pins of the moisture meter have to be pushed or pounded into the wood, and the moisture in the area between the pins is measured. Pin moisture meters allow for the testing of small areas. This is important when the moisture content within the material to be measured is changing, specifically between core and surface moisture. For the floor industry, that becomes important when the floor planks have absorbed moisture from the subfloor at the bottom of the planks or from the air above the floor at the top of the planks.

For an inspector, a pin moisture meter with longer insulated pins allows checking the subfloor without removing the floor planks. The pins need to be hammered through the floor planks and into the subfloor below to indicate the moisture percentage of the subfloor. Pinless meters are not able to indicate different moisture levels within their measuring field and the measuring field is limited to ¾" unless mentioned otherwise by the moisture meter manufacturer.

The ideal is to have access to both a pin and pinless meter such as the Ligno-VersaTec from Lignomat, which has the added benefit of different attachments available to tackle any moisture problems that may occur during maintenance. A slim electrode can be added to the pin-pinless-RH moisture meter Ligno-VersaTec to fit into tight spaces. Long pins will measure through insulation in search of moisture infiltration. Pinless mode allows scanning large areas quickly, floors, walls or ceilings, but when a problem is detected, the pin electrode helps with further investigation.

Flooring decisions and strategies for installation can be made a lot easier when you understand the products and processes that will produce results that will last beautifully for a lifetime.

ABOUT THE AUTHOR: Grete Heimerdinger has been the technical adviser for the moisture meter division for Lignomat. She graduated from the technical university in Stuttgart and started Lignomat with her husband in 1982. Lignomat now offers a full line of pin, pinless and RH meters as well as wireless monitoring devices for buildings.

We're Still Listening.

Water professionals know that swimmers demand clear and clean water. That's why we continue to work hard to make your job easier. Make chlorination easy with the **ACF Series** Calcium Hypochlorite Feeders.

Clarify with Vantage Poly-A Clarifying Tablets. This unique and powerful tablet water clarifier is not just to clear up cloudy water after a long weekend. As a maintenance product, it works with your filtration system to remove organic and inorganic compounds to prevent dull and cloudy water.

SANITIZE with the
ACF Series
Calcium Hypochlorite Tablet Feeders

- Safer than liquid systems
- Runs "Clean" - Less Maintenance!
- Simple, Efficient, and Durable
- Systems available for ANY size pool
- NSF/ANSI Standard 50 Certified

CLARIFY with the
VPF-20
Poly-A Tablet Feeder

- Unique tablet clarifier
- Easier than liquid systems
- Removes organic and inorganic compounds
- Increases filter effectiveness
- Proven cryptosporidium removal

VANTAGE®

AllChem Performance Products, Inc.
Phone: 352.378.9696
FAX: 866.343.1216
email: vantage@allchem.com
www.vantagewatercare.com

Setting the Standard

STRATEGIES FOR CONSTRUCTING ENERGY EFFICIENT CAMPUS BUILDINGS

BY DAVID VINSON, PhD

In size, population, and the many activities taking place on campus, private colleges and universities are in many respects like small, self-contained cities. The systems in place to keep these institutions operating smoothly are multi-faceted, not least of all given the evolving needs and wants of those who live and/or work on campus. Increasingly, this means administrations are working to find innovative ways for their campuses to operate smoothly with reduced impact on the environment.

Across the country, campus sustainability has been embraced as a core institutional value. Not only is sustainability an asset for campus recruitment, but it facilitates long-term economic, social, and environmental stability and growth. As we continue to accrue knowledge regarding the environmental impact of the activities and operations of universities, our strategies for developing sustainable practices have increased exponentially. Perhaps more than ever, our institutions are using the resources of teaching, outreach, and partnership to implement and promote sustainable lifestyles. Many universities have also signed declarations to indicate their commitment to sustainability, a practice that is trending upwards.

Transforming our campuses into sustainable environments has proven to be a considerable but worthwhile undertaking. This process begins with a shift in campus culture, and it extends to building a network of universities committed to sustainable practices. This

is not a localized endeavor but a global one. For instance, the International Sustainable Campus Network (ISCN) provides a platform for leading educational institutions around the world to exchange ideas and information for realizing a sustainable campus. To date, its signatories include the world's top-ranked universities such as Yale and Harvard in the United States, National University of Singapore, University of Gothenburg in Sweden, as well as many other renowned educational institutions. Projects like ISCN invite the participation and support of researchers, students, and all campus citizens. Their main goals include the testing of innovations developed by scientific research, promoting lifestyle transformation and more livable spaces, and serving as an example for off-campus communities to minimize environmental impact and optimize the integration of built and natural environments.

What follows is an overview of two standouts in the latest in energy-efficient campus buildings. Institutions such as Washington University in St. Louis and Tufts University serve as exemplary models for innovations in sustainability, and both provide a roadmap for other like-minded institutions to follow.

Excellence in Sustainability at Washington University in St. Louis

Washington University in St. Louis ranks among the nation's leaders in sustainability (environmentamerica.org), and its commitment to creating a sustainable campus runs through all aspects of its community and operations. Faculty regularly conducts research to develop innovative strategies to combat climate change and environmental degradation; and its staff members are engaged in a multi-decade process to transform traditional campus operations into sustainable ones. Students at Washington University gain knowledge and leadership skills that prepare them to play essential roles in shaping future solutions. Moreover, university leaders and stakeholders are aligned with a university-wide strategic planning

continued...

Across the country, campus sustainability has been embraced as a core institutional value. Not only is sustainability an asset for campus recruitment, but it facilitates long-term economic, social, and environmental stability and growth.

process consisting of multiple focus areas targeting sustainable operations. As of 2023, Washington University has completed a total of thirty-five LEED-certified projects, twenty-three of which have exceeded LEED Silver, including thirteen Gold and nine Platinum certifications. The LEED Silver standard adopted by Washington University has proven instrumental in achieving 3.25 million square feet of LEED-certified space, double that of the university's total in 2015. Thirty percent of university-owned space on the Danforth and School of Medicine campuses is LEED certified, and the main campus is home to one of the first two buildings in the world to achieve Living Building certification—one of the most stringent green building certifications in the world. The Tyson Living Learning Center (LLC) is a net-zero building, meaning that it operates at net-zero energy and net-zero water consumption. The LLC produces its energy on site from solar photovoltaic panels, and all water used in the building is filtered from rainwater captured on the roof. The 2,900-square-foot facility houses a computer lab, classrooms, and administrative offices for the Tyson ecological research station. Moreover, the building itself is largely made of local, repurposed materials—this includes siding provided by nearby eastern red cedars, which were removed due to a habitat restoration.

Transforming our campuses into sustainable environments has proven to be a considerable but worthwhile undertaking. This process begins with a shift in campus culture, and it extends to building a network of universities committed to sustainable practices.

The refurbishment of McMillan Hall, one of the university's oldest and most revered buildings, required a delicate balancing act of preserving its historic character while incorporating new classrooms, offices, as well as research and teaching labs. An added challenge was to maintain the university's high standards of sustainability. The result is a high-performance 9,000-square-foot addition. Among its features is a green roof that doubles as a classroom and garden space, where students can learn about plants and ethnobotany. The refurbishment also includes a 174-seat Arts & Sciences classroom and three anthropology teaching labs, all with state-of-the-art audio-visual equipment. The Danforth University Center (DUC) was the second LEED building on campus and the first to be assigned gold certification. Sustainable features of the DUC include low-flow water systems, substantial use of daylighting, low-energy usage lighting, local and regional material, and access to transit and bicycle shower facilities. Among the institution's many other green buildings is The Lofts of Washington University, an $80 million residential and retail project which was awarded LEED Platinum certification. The student apartment and retail complex was designed to be forty-six percent more efficient than standard construction, which effectively minimizes environmental impact and creates healthy spaces for tenants and retail customers. Solar thermal panels heat twenty-five percent of the building's domestic hot water. Solar photovoltaic cells provide ten percent of the building's electrical needs. Rain gardens treat storm water, and the building's signature aluminum sunshades are striking in design an effective tool in keeping apartments comfortable.

A Tradition of Sustainable Design at Tufts University

Located in the Greater Boston area, Tufts University has long been a leader in campus sustainability. As far back as 1990, Tufts developed the first university environmental policy and launched the international Talloires Declaration, now endorsed by well over 400 university leaders worldwide. The university has committed to reaching carbon neutrality by 2050, and it has prioritized sustainable infrastructure within the built environment and in all its campus planning projects. Of its many sustainable buildings, the Joyce Cummings Center stands out. It is a highly efficient, seven-story building designed with a low energy-use intensity target and one that incorporates a remarkable range of sustainability features, all in service of reducing energy consumption and greenhouse gas emissions. The Joyce Cummings Center utilizes two heat recovery wheels, a heat recovery chiller, a rooftop solar array,

continued...

University Communication Solutions

*Introducing Icom's **CONNECT** System*

CONNECT
Custom Communication Solutions

Icom CONNECT's suite of multi-protocol solutions is designed for large and multi-campus use.

The VE-PG4 creates a seamless ecosystem for LTE devices, Digital Radio Systems, SAT radios, SIP phones and other VE-PG4s (even cross-country). The VE-PG4 can integrate public address systems, sirens, warning lights, and other external devices to keep your students and staff informed.

Rely on Icom to stay connected when it counts. For a customized solution that suits your needs, contact an Icom sales rep today.

www.icomamerica.com
insidesales@icomamerica.com

ICOM

occupancy sensors, triple glazing on windows for temperature control, and high-performance insulation. It also features ample natural light and efficient lighting, in addition to a plaza that incorporates drought-resistant plants.

The Science and Engineering Complex (SEC) is another example of Tufts' achievements in sustainability. Sustainability was considered in every decision of the SEC's design and construction, and the results are impressive. The SEC uses seventy percent less energy than a typical lab building and is certified LEED Gold. Rather than demolish existing buildings and starting from scratch, the project built upon Tufts' Robinson Hall and Anderson Hall, joining them together and in turn reducing carbon emissions during the building process. This strategy also allowed for the reuse of large amounts of building material.

Now completed, the SEC contains many of the same features as the Joyce Cummings Center but also offers an ethical food sourcing café. Its heat recovery system captures up to seventy-two percent of the building's heat—heat that would otherwise be lost. The SEC received the Honor Award for the Boston Society for Architecture's 2021 Sustainable Design Awards. It was recognized as an "outstanding achievement" and was chosen by the American Institute of Architects (AIA) Committee on the Environment as a recipient of a 2022 COTE Top Ten Award, the industry's best-known award program for sustainable excellence. In line with other sustainable buildings at Tufts, the School of Dental Medicine has been undertaking since 2008 a multi-year, multi-phase master plan to promote sustainability and environmental quality. This plan began with a five-story vertical expansion that added 95,000 square feet to the existing building, subsequently earning LEED Silver Certification. Its second phase was completed in late 2011 and received LEED Gold Certification the following February. Looking forward, Tufts' next renovation project plans to achieve a forty percent water savings with the use of dual-flush toilets, low-flow urinals, and metered lavatory faucets. Occupancy sensors will be added to offices, and energy-efficient hand dryers will be installed in every bathroom. The dental school has committed to purchasing at minimum ninety-one percent Energy Star-rated equipment, including computers, monitors, copiers, printers, and refrigerators. Tufts has also purchased Green-e Energy Certified Renewable Energy Certificates, thereby offsetting 100 percent of the dental school's second-floor power consumption for the first two years following full renovation.

ABOUT THE AUTHOR: Dr. David Vinson has a PhD in English with specializations in transatlantic literature and cultural studies. He is a committed scholar, teacher, and dad. If you ever meet David, avoid the subject of soccer. His fandom borders on the truly obnoxious.

COMMAND ATTENTION. UNLEASH IDEAS.

Whether it's a lecture, a class, or an online course, speech intelligibility is critical to productivity, student participation and achievement. At Shure, we have over 90 years of experience enabling great communicators to connect with their audience. You can leverage our wealth of knowledge in acoustics, audio, and wireless technology, to create immersive learning environments that enhance the student experience.

With the support of our market-leading global team, learn how to make audio work for you.

https://shu.re/pupnmag

shure.com

SHURE

FAIL-SAFE

FLOODELIMINATOR

Model 5900

Eliminate Flooding Caused by Broken Auxiliary Drains

The M5900 stops flooding caused by auxiliary drains that freeze and break, are maintained improperly, vandalized, or broken by accidents. They enable facilities to recover faster with less clean-up and expense.

- For Dry and Pre-Action Fire Sprinkler Systems
- Compatible with Compressed Air and Nitrogen
- No Power Required
- Automatically Resets
- Allows Condensation to be Drained Normally
- Retrofit onto Existing Auxiliary Drains
- Made in the USA

PRODUCT VIDEO

INVENTED
DESIGNED
ENGINEERED
CAST
ASSEMBLED
100% TESTED
IN THE USA

www.agfmfg.com

PHOTO COURTESY BRADLEY CORPORATION

Emergency Eyewash and Safety Shower Best Practices

PHOTO COURTESY BRADLEY CORPORATION

BY RYAN PFUND

As a part of any university safety plan, campus facilities that have potentially hazardous materials need emergency showers and eye/face wash fixtures onsite. However, while these fixtures may be installed, that doesn't always mean students and staff are automatically protected with this equipment. Sometimes the equipment is outdated, not in working order, not located near all hazards, unclean, unable to dispense tepid water and/or not in compliance with American National Standards Institute (ANSI/ISEA) Z358.1–2014 standards.

Plumbed emergency shower equipment is essential in all types of commercial buildings—including educational establishments—that involve any types of chemical, flammable and particulate hazards. When installed and used correctly, these fixtures can provide immediate emergency decontamination and relief resulting from direct exposure to these injurious materials.

Specifically, in universities, some of these environments include:

- Chemistry classrooms/labs
- Chemical and custodial storage areas
- Buildings and grounds chemical storage areas
- Swimming pool chlorine storage areas
- Industrial arts
- Art rooms/darkrooms
- Print shops
- Health centers
- Boiler rooms
- Kitchens

Compliance with ANSI/ISEA Standard

It's important to be aware that some older schools are not equipped at all with drench showers and eyewashes, or have equipment that is outdated, obsolete, nonworking or fails to meet the current American National Standards Institute (ANSI) Z358.1-2014 Standard. Moreover, few schools are following ANSI/ISEA standards for correct placement and regularly testing emergency equipment to make sure it is in proper working order. Because emergency eye wash and shower equipment are used by people in serious exposure situations, it is imperative these fixtures are inspected, tested and verified weekly to ensure immediate, reliable and proper usage.

Here's why: If chemical spills or toxic fumes occur, students and/or employees in the area could be at risk for serious chemical burns, eye injuries or blindness and respiratory irritation. And the cause could be something as simple as cleaning staff combining bleach and ammonia, releasing highly irritating fumes—or students inadvertently mixing or heating volatile chemicals incorrectly. These types of incidents dramatically illustrate why it is essential for facilities with potential hazards to provide the right emergency equipment to protect against serious injuries from chemical exposure. Plumbed drench showers and eyewash stations are usually the best solutions in these areas; when there is no access to plumbing, non-plumbed options are also available.

The following are guidelines for equipment selection and usage best practices:

1. Determining equipment placement and accessibility

Start with a site evaluation to identify at-risk areas, potential hazards and emergency needs, and evaluate factors like product location, water supply, water temperature, accessibility and equipment selection.

During a walk-through, it is essential to reference the ANSI/ISEA Z358.1–2014 emergency equipment standard, which outlines

continued...

KMC CONTROLS

KMCControls.com/afms

KMC Conquest AFMS

The patent pending KMC Conquest™ Airflow Measurement System is the only airflow measurement tool that is built on the Temperature Ratio Equation specified in ASHRAE Standards 111.

Unmonitored Airflow

Bringing fresh outside air inside is the most efficient and systematic way to improve the quality of the air we breathe.

Inaccurate Airflow Measurement

Traditional technology is plagued with pitfalls. Inaccurate readings can be caused by anything from the weather, to low air velocities, temperature, ductwork bends, turbulent airflow, or any number of other common issues.

HOSPITAL

KMCConquest™

Airflow Measurement System

For facilities such as classrooms, laboratory environments and tight workspaces, a new generation eyewash model combines a sink faucet with an eyewash built in for emergency eyewash use, offering a highly efficient and convenient space-saving solution for educational facilities.

the specific requirements for emergency eyewash and drench shower equipment installation, testing, performance, maintenance, training and use. Safety data sheets (SDS) are another excellent source for determining protection needs, since they contain first aid information stating if drenching facilities are required.

The ANSI/ISEA standard requires that such fixtures be installed within ten seconds' reach of each hazard, which is about fifty-five feet away. At sites where strong acids or caustics are used, the equipment should be placed immediately adjacent to where the exposure could occur. The equipment should be on the same level as the potential hazard. Drench showers and eyewash stations must supply tepid water with a temperature between 60∞ F and 100∞ F (15.6-37.8° C) and be capable of a full 15-minute flush.

Since work environments are dynamic and change over time, assessments should be conducted annually to ensure the proper type, quantity, installation and location of emergency fixtures. Some product manufacturers offer complimentary safety shower and eyewash system site surveys to check equipment operation and placement, and compliance with the ANSI/ISEA Z358.1–2014.

2. Recognizing hazards informs emergency shower/eyewash selection

Equipment selection should be based on the type and level of potential exposure to people and how many individuals could be affected. For example:

Emergency eyewash stations

- Effective for spills, splashes, dust or debris likely to affect only the eyes
- Provides a controlled flow of water to both eyes simultaneously
- Delivers an uninterrupted, fifteen-minute supply of tepid water. Plumbed units can supply a greater volume of water available—between 2.0 and 5.0 gallons (7.5 and 19.0 liters) per minute

Emergency eye/face wash stations

- Used when the entire face is at risk from spills, splashes, dust and debris
- Irrigates the eyes and face simultaneously
- Provides a large distribution pattern of water (minimum 3.0 gpm/11.4 lpm) to effectively rinse the entire face

Drench showers

- Used when larger areas of the body are at risk
- Flushes a larger portion of the body but is not appropriate for the eyes (a combination eyewash and drench shower may be used to simultaneously flush the eyes and rinse larger areas of the body)

Non-plumbed, self-contained eyewash fixtures

- When there is no access to a plumbed water source, self-contained units can be used

PHOTO COURTESY BRADLEY CORPORATION

continued...

PHOTO COURTESY BRADLEY CORPORATION

- Water tanks deliver a minimum of .4 GPM for minimum of fifteen minutes
- Systems can be portable and gravity fed

3. New technology ensures the best wash-down coverage

The newest generation of emergency fixtures is designed to deliver a more uniform and complete spray pattern distribution. Older shower designs push the flow of water to the outer rim of the showerhead, creating a hollow space in the center of the pattern that can miss affected areas.

Using the latest technology in fluid dynamics, new drench shower designs work in tandem with a pressure regulated flow control and the spinning motion of water, which creates an optimal spray pattern to rinse off contaminants as quickly and thoroughly as possible. The contoured shape combined with the spinning water funnels the water into a concentrated, yet gentle, deluge to ensure the most effective flush available.

New eye/face wash designs using this new technology can ensure water is dispersed to all areas of the face including the forehead, temples and chin. These new types of eye/face washes provide twenty percent better washdown protection than other designs.

4. Dual-use swing-activated eyewash models save space

For facilities such as classrooms, laboratory environments and tight workspaces, a new generation eyewash model combines a sink faucet with an eyewash built in for emergency eyewash use, offering a highly efficient and convenient space-saving solution for educational facilities.

During regular faucet use, the eyewash is stored out of the way. In an emergency, the eyewash is immediately activated when it is swung out 90 degrees over the sink. When the eyewash is activated, the swing-activated design ensures that the faucet moves out of the way, positioning the eyewash directly over the sink and allowing clear access to the fixture. With the eyewash in the optimal position over the sink, water is contained in the sink without dripping or spraying on countertops and floors, which can create mess and risk of slipping and falling.

5. Weekly inspections ensure good working order

According to ANSI/ISEA Z358.1–2014, emergency drench showers, and eye and eye/face washes must be activated one time per week to ensure they work properly in supplying tepid water when needed.

This activation ensures that nothing is blocking the flow of the flushing fluid and eliminates any chance of contamination from stagnant water. It's important that all heads of the device are activated, including the eyewash or eye/face wash head, as well as the showerhead.

Take time to flush lines long enough to clear any sediment and debris. Self-contained units should also be visually inspected weekly. Inspection tags are often included with fixtures to document testing and to satisfy a safety audit. Keeping a dated checklist for inspections helps follow-through and accountability. Training workers on the location and operation of fixtures also helps reinforce proper usage.

Finally, review your safety plan regularly and take time to train staff on the usage of equipment to ensure all students and faculty are protected. Even though hazardous exposure issues may not be top-of-mind during your campus' daily work routine, paying attention to regular maintenance and inspections of your safety equipment ultimately will result in a safer learning environment.

ABOUT THE AUTHOR: Ryan Pfund is Senior Product Manager, Emergency Fixtures, for Bradley Corporation of Menomonee Falls, Wis., a USGBC & ISEA member and manufacturer of locker room products, plumbing fixtures, washroom accessories, partitions, emergency fixtures and tankless water heaters.

A New (and Better) Approach to Water Intrusions

HOW UNIVERSITIES CAN HARNESS INTERNAL RESOURCES TO SAVE MONEY AND MINIMIZE INTERRUPTIONS

BY TIM POSKIN

Pipe freeze-ups, plumbing mishaps, and roof leaks are all too common—and often occur over weekends or during school breaks when buildings are vacant and staff is limited. Windows left open while temperatures plummet, mechanical rooms and fraternity houses flooded, and heating system failures are all real-life scenarios that can cause major moisture problems. There's no doubt—in the realm of university building management and construction, water intrusion poses a significant challenge.

Despite advancements in building technologies, water intrusion remains a serious, multifaceted problem that regularly affects campus residential, academic, and athletic buildings. When unwanted water infiltrates, the roof, walls, windows, and foundation can all be impacted. On many campuses, poor construction and aging infrastructure exacerbate the risk of serious damage when intrusion occurs.

The consequences of water intrusion are far reaching. It compromises space use, leading to delayed classes, canceled events, and unhappy building occupants. Moreover, trapped moisture creates an ideal environment for mold and mildew to flourish, posing health risks to staff and students. Not addressing problems quickly can lead to expensive remediation, and, in severe cases, significant building reconstruction.

Today, universities often use existing, internal workforces to improve first response efforts—but those internal efforts to address water damage need to follow sound practices, with the right tools on hand, to be effective. Standardized processes and benchmarking systems revolutionize the way universities address water intrusion issues, saving both time and money as well as preventing space downtime that can impact the learning experiences of students. When in-house staff is trained for this work, universities can leverage this practical resource to tackle problems in house rather than contracting out every water issue.

A Standardized Process

Implementing a structured approach harnesses the power of university facility maintenance teams to address water intrusion and ensures effectiveness and consistency. An essential initial step involves a comprehensive assessment process, encompassing the following crucial elements:

Initial Evaluation

Conduct a full baseline evaluation of facilities requiring cleaning or potential restoration, as well as available equipment and materials needed, using an objective third party. Outside experts in water-damage restoration can help navigate the assessment process and share first-hand knowledge, including common readiness challenges and solutions.

This initial evaluation establishes the current situation and identifies critical gaps. It should:

- Include a facility tour with key leadership present and an inventory of available response tools and equipment
- Cover who will respond to water damage emergencies, what staff training has taken place, accessibility of equipment, and current response process
- Extend to logistical details such as identifying electrical outlets for equipment, confirming their functionality, checking air quality against EPA standards, and noting equipment storage locations

Initial evaluation can uncover gaps in preparedness as well as key strengths—both relevant to planning. For example, during a recent evaluation at a major university, evaluators from Legend Brands' Ready to Respond (R2R) program identified a range of areas that were being handled well—like personal protective equipment (PPE) use and record keeping—as well as a list of areas needing improvement, such as insufficient equipment on site, lack of monitoring of off-hours incidents, and inconsistent response protocols. These findings informed development of a systemized approach.

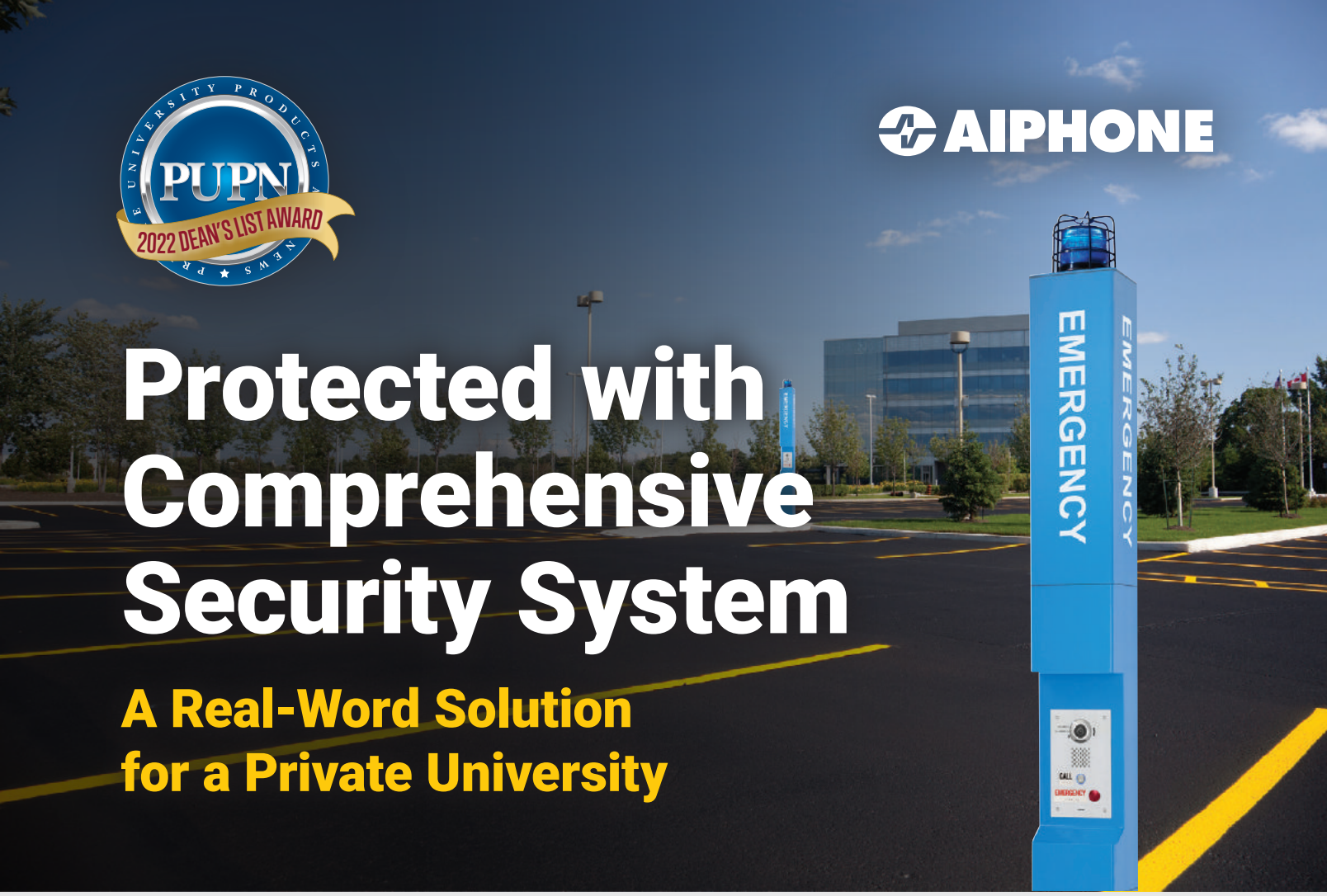
Detailed Procedures

Develop detailed response protocols for mitigation and restoration tasks, including step-by-step procedures for the use of cleaning agents and water damage restoration equipment. These protocols should define precise roles and responsibilities for staff and incorporate industry best practices. Many organizations effectively use flowcharts to outline standard operating procedures during emergencies. For example:v

- **Step 1:** Locate and halt the water source.
- **Step 2:** Determine the type of water (clean or contaminated).
- Subsequent steps provide specific instructions for selecting equipment, setup, and disinfection.

In the R2R-assessed university's case, response protocols existed but were fractured—spread among different departments—therefore a new, integrated response protocol needed to be developed.

continued...



PUPN 2022 DEAN'S LIST AWARD

AIPHONE

Protected with Comprehensive Security System

A Real-Word Solution for a Private University

Administrators wanted a system to provide staff with the ability to screen visitors before letting them inside any building on campus.

They wanted the same system to provide discernible calling points in their parking lots for students and staff to reach help in case of an emergency.


AIPHONE SOLUTION SHOWCASE

Adding Security and Communication to a Private University

THE SCENARIO

During a professor's lecture one day at a private university, a menacing person burst in and threatened everyone with a weapon. Two students and the professor were able to subdue the individual until authorities arrived to handle the situation. Luckily, no one was harmed, but the incident proved their campus was vulnerable to security risks. To keep students and faculty safe from potential threats, administrators recognized they needed to implement an entry security system.

Prior to selecting a system, administrators consulted with security personnel to get insight on additional features needed for the campus. During the consultation, it was discovered there was recurring criminal activity in the university's parking lots; a method to call for help from these areas was also a must.

Administrators wanted a comprehensive system to provide staff with the ability to screen visitors before letting them inside any of the buildings on campus. They wanted the same system to provide students with help points across the various parking lots so they could call campus security in case of an emergency.

THE SOLUTION

Once the university's administrators determined their exact needs for entry security and emergency communication, they selected a versatile IP video intercom and issued a campus-wide mandate to keep all building entrances locked during and after school hours.

Card reader stations were installed at exterior entrances of each building on campus. Staff now had their own convenient access with keycards while being able to safely identify visitors on the interior master station.

The system also integrated with dual-call emergency stations with highly visible towers. Students and staff had an immediate way to reach help, even from the most remote parking lots on campus.

Keeping entrances locked 24/7, the IP video intercom provided staff with a reliable method to screen visitors before letting them inside.

See why administrators selected our reliable IP video intercom with emergency call stations and towers

Employee Training

Provide comprehensive training to facility staff on standardized protocols, emphasizing the importance of timing, accuracy, and consistency. This training prepares staff to act as effective first responders during emergencies and includes instruction on:

- Proper equipment setup and operation
- Identifying potential safety hazards
- Preventing mold and mildew
- Employing general best practices for healthy cleaning and restoration

Industry partners, including Legend Brands and the International Sanitary Supply Association (ISSA), offer hands-on training opportunities, allowing staff to gain practical experience in handling building emergencies. Additionally, brief training sessions for all building occupants can cover initial actions to take during emergencies, including safety considerations.

Equipment Inventory

Ensure the availability of appropriate equipment and supplies, including tools, PPE, and cleaning agents, while regularly checking and maintaining equipment to ensure optimal functionality. This includes considerations such as:

- Availability of moisture inspection tools
- Adequate storage space for equipment
- Types of disinfectants in use
- Availability of commercial-grade extraction, drying, dehumidifying, and air filtration equipment

Cutting corners on equipment can result in extended drying times, blown fuses, and occupant health concerns. Specialized meters designed for water-damage assessment provide more accurate readings than the hands and feet "touch test"—which the R2R-assessed university was relying on for moisture inspections.

Documentation

Establish a robust system for documenting cleaning and restoration activities, including schedules, tasks performed, tools used, and outcomes. Comprehensive documentation facilitates progress tracking, identifies areas for improvement, and ensures compliance with safety and health regulations.

In cases where insurance claims are filed, detailed documentation is essential. Proper record keeping is also crucial for institutional guidelines and capital planning in public environments like universities.

Quality Assurance

Implement quality control measures through regular evaluations and assessments of the response program's effectiveness. Gathering feedback from staff and other stakeholders helps identify and address issues promptly. These evaluations should address questions such as:

- What worked and what didn't?
- Why didn't certain approaches work?
- Is the issue isolated or systemic?

Meanwhile, be sure to stay informed about emerging technologies and practices in mitigation and restoration. Advancements in technology—such as the Legend Brands/Dri-Eaz Command Center system—now enable remote monitoring of moisture levels and equipment functionality.

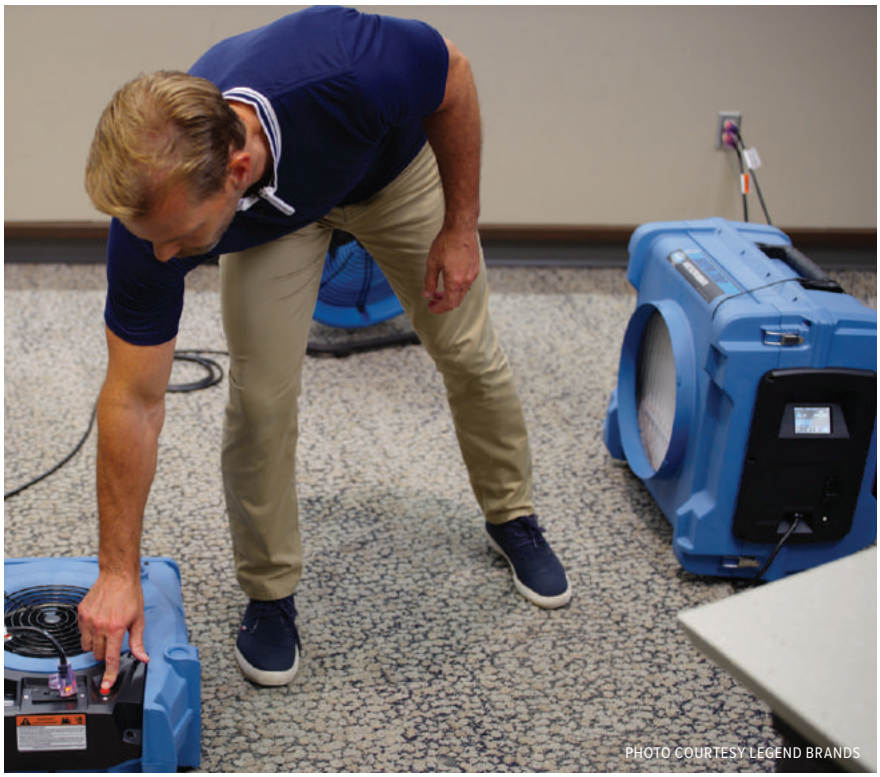


PHOTO COURTESY LEGEND BRANDS

Effective Communication

Establish clear communication channels to keep relevant parties informed about response requirements, updates, and protocol changes. An organizational pitfall the R2R team has observed is when facilities staff rely on one person with institutional knowledge to serve as the go-to when an emergency occurs. Training materials, inspection reports, and corrective actions must be easily accessible to all team members. Creating a central communication system ensures efficiency and prevents duplication, especially when an incident occurs off hours.

continued...

Risks to Avoid

While utilizing the university workforce as first responders holds tremendous promise, it is essential to acknowledge and address possible challenges:

- **Resource allocation**—Universities must allocate resources to support this initiative, including necessary equipment and materials.
- **Liability and insurance**—Universities must consider liability issues and ensure proper insurance coverage for students involved in on-site work.
- **Quality control**—Maintaining high quality standards is crucial. Oversight and industry partnerships can help ensure that the work meets professional standards.

Solving costly, everyday building water intrusion issues with university workforce teams is an innovative and promising approach that has proven success. Soon after its R2R evaluation was complete and standardized processes were enhanced, the major university that was assessed experienced a serious water intrusion impacting luxury suites at its large stadium—which was scheduled to be in use just two days later for a professional sporting event.

With an internal response system now in place, facilities staff worked immediately to extract water, dry down the area thoroughly, and meet the deadline. If a contractor had instead been called, scheduling the clean-up could have taken weeks. And if action had not been taken so quickly, the intrusion could have led to far more costly and extensive damage.

The university's facilities staff said that having the option to handle a situation in house brought the team confidence and helped save thousands of dollars toward insurance deductibles. For a university with more than 16 million square feet of building space, the impact of having these capabilities in house is significant.

By implementing a standardized process and benchmarking system, universities can tap into their vast resources to address a critical real-world problem. As they continue to evolve as centers of knowledge and practical experience, addressing complex challenges like water intrusion is more critical than ever to ensure these spaces remain open, safe, and healthy

ABOUT THE AUTHOR: Tim Poskin is the current MRO Program Director for Legend Brands, managing its Ready2Respond Facility Assessment Program. He currently serves as chair of the ISSA Cleaning Management Institute (CMI) Workloading and Benchmarking Council and is the former Director of the ISSA Consulting Division. Tim is one of the world's leading authorities on cleaning and restoration workloading, converting outsourced response contractors to in-house response specialists, and transitions from polluting programs to restoration systems. Tim can be reached at 206-384-6967 or t.poskin@legendbrands.com.

HOPE'S®

For more than a century, Hope's has handcrafted the world's finest steel and bronze windows and doors, and we continue to refine the art that makes them the most sought-after and longest lasting windows and doors available. Hope's exclusive hot-rolled steel and solid bronze profiles replicate the traditional aesthetic of historic buildings while providing modern performance and efficiency. Hope's windows and doors are built to last a lifetime and beyond – sustaining their beauty and performance for generations. **HopesWindows.com**

HOPE'S WINDOWS, INC. — EST. 1912 — JAMESTOWN, NEW YORK

PRODUCTS SHOWN:
University Series™ steel fire-reated and non-rated windows and doors

ARCHITECT: David M. Schwarz Architects, Inc.
PHOTOGRAPHER: Steve Hall, © Hall + Merrick

SMARTDESKS®

Space Optimization For Your Needs

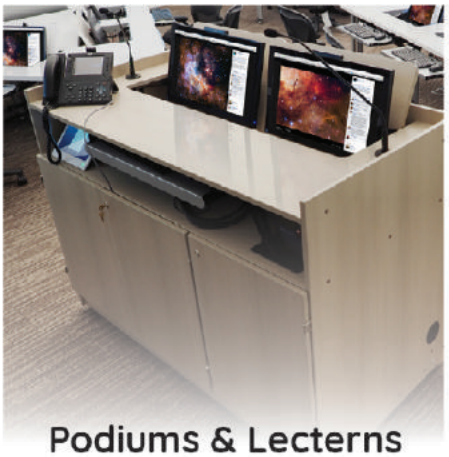
Active Learning

Conference & Meeting

Multi-Use Classroom

Training & Library

Teleconference



Podiums & Lecterns

Smart Office

Monitor Retrofit Kits

Design Your Classroom Scan Below Now!

SMARTDESKS®

Work Intelligently

(800) 770 7042 | www.smartdesks.com | sales@smartdesks.com

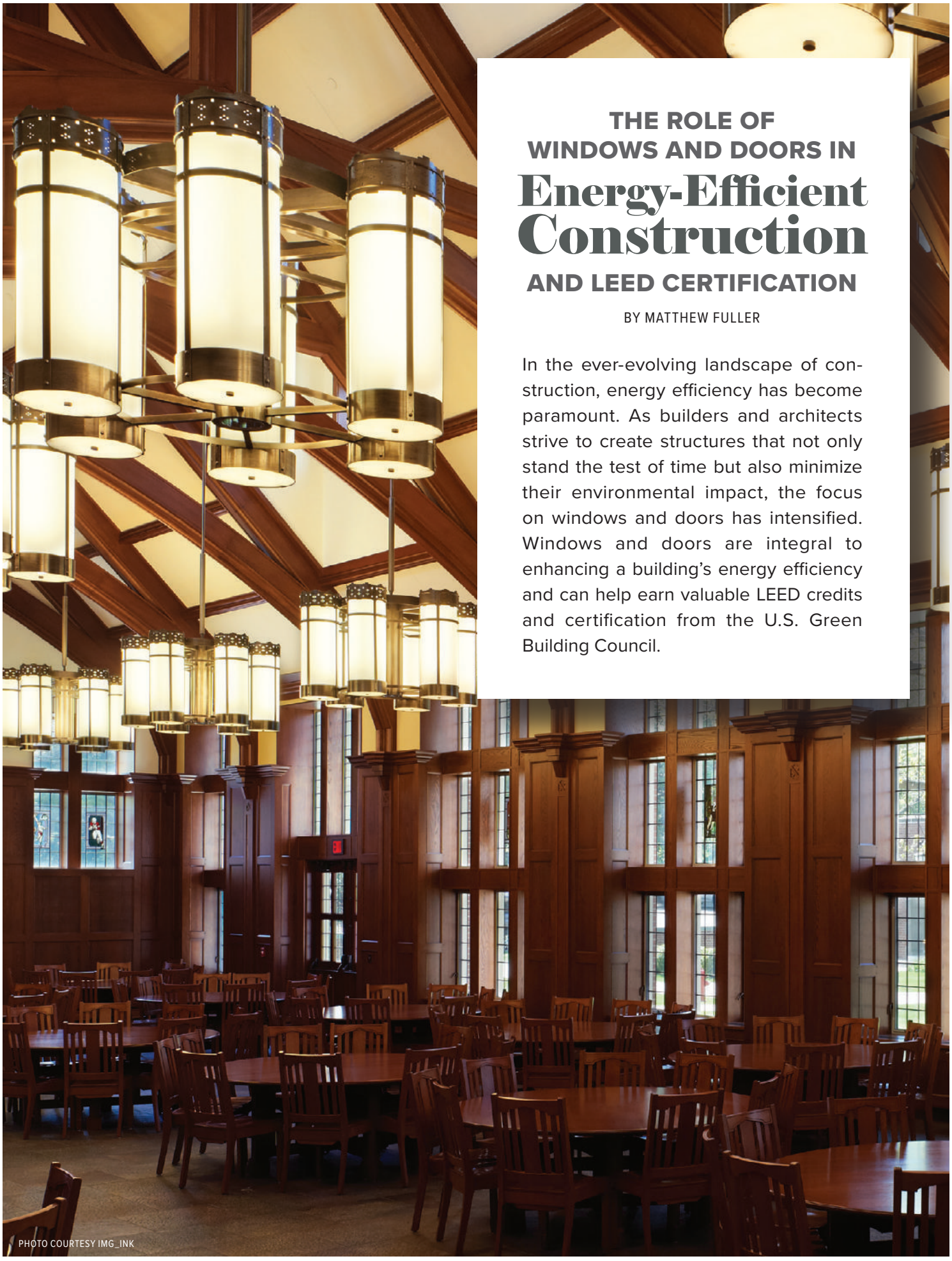


PHOTO COURTESY IMG_INK

THE ROLE OF WINDOWS AND DOORS IN

Energy-Efficient Construction

AND LEED CERTIFICATION

BY MATTHEW FULLER

In the ever-evolving landscape of construction, energy efficiency has become paramount. As builders and architects strive to create structures that not only stand the test of time but also minimize their environmental impact, the focus on windows and doors has intensified. Windows and doors are integral to enhancing a building's energy efficiency and can help earn valuable LEED credits and certification from the U.S. Green Building Council.

Windows and doors are significant contributors to a building's energy efficiency. Poorly designed or outdated windows and doors can result in thermal inefficiencies, leading to increased heating and cooling costs. Modern construction practices prioritize energy-efficient materials and designs to create a more sustainable and cost-effective building envelope.

Here's what you need to know when it comes to making your next selection of windows and doors on your campus.

High-Performance Windows

Today's construction industry benefits from a variety of high-performance window technologies. Double or triple-pane windows, low-emissivity coatings, and insulated frames are just a few examples. These features not only enhance insulation but also contribute to soundproofing and overall occupant comfort. When selecting windows, it's crucial to consider the climate and orientation of the building to maximize energy gains and losses.

The quality of materials is also a major factor. Steel has better natural insulating capability compared to other metals, conducting heat and cold at one-fifth the rate of aluminum. Aluminum products require a thermal break just to match the natural thermal performance of steel. The minimal frame dimensions of steel

continued...

Custom Branding

At LaptopsAnytime™, we recognize that the success and excitement of your new kiosk is based on showcasing the best of your school's distinctive branding. Our seasoned pros will design and produce custom graphics for you. The idea behind the graphics is to help promote the kiosk, and the laptop/charger initiative underlying it. Build enthusiasm for using the service at the same time as promoting your brand.

Self-Service Dispensing Kiosks

Repair Depot - Long/Short Term

OVER 6 MILLION 6,000,000
ANNUAL CHECKOUTS AND GROWING

Powered By LAPTOPSANYTIME™
Automated Checkout Kiosks

1-877-836-3727 • LaptopsAnytime.com

windows and doors further lessen thermal transfer by reducing surface exposure.

Retrofit and historic renovation projects benefit from over a century of manufacturing and technical advancements—insulated and low-E glass, and integral-groove weatherstripping to name a few—coupled with slim, historically accurate sightlines. Modern safety features such as hurricane resistance can be incorporated into steel window systems and simultaneously complement the visual integrity of period buildings.

Architects may still specify a thermal break despite the natural thermal properties of steel. It is important to understand that adding a typical thermal break into any metal frame results in dramatically weakening the material. This is because a traditional thermal break splits the frame into interior and exterior pieces and then reconnects them with a weaker insulating material. An advanced alternative solution available from Hope's Windows, Inc., is Thermal Evolution™ technology, which ensures that the solid steel profiles remain solid for the full depth of the frame, thus maintaining the structural integrity of the steel.

These properties and features, together with modern advancements in glazing, result in exceptional thermal performance and condensation resistance for steel windows. Doors, sometimes overlooked in terms of energy efficiency, are equally important. Insulated doors with airtight seals help prevent drafts and maintain a consistent indoor temperature. As with windows, doors made of steel offer sustainable solutions to create healthy indoor educational environments with a lower environmental impact. Steel windows and doors are energy efficient and impervious to air and water infiltration, crafted from recycled steel, and finished with environmentally friendly coatings. These strong and extremely durable windows and doors achieve unparalleled life cycle value and assist building owners and architects seeking LEED certification from the U.S. Green Building Council.

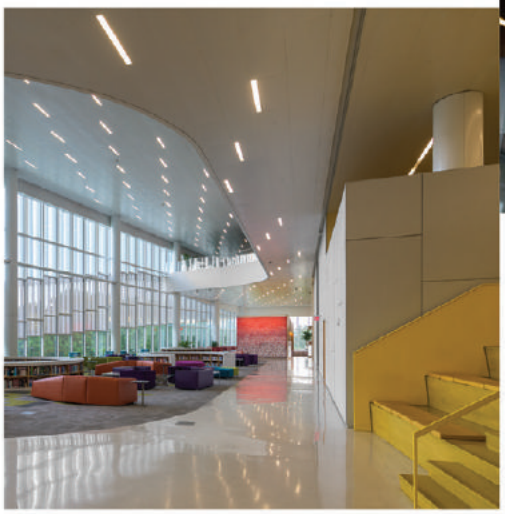
Stress Sustainability

Here are a few of the most impactful ways private university and college campuses are prioritizing environmentally friendly building practices:

- **Conserve Natural Resources:**
Steel is the most recycled material in the United States. Each year, the steel industry saves enough energy through recycling to power 18 million homes—one-fifth of the nation's households. Choose high-quality steel windows and doors that are made with hot-rolled frame profiles that are 100 percent recycled steel.

- **Sustainability:**
The strength and durability of solid, hot-rolled steel doors consistently outperform

continued...



Create One-of-Kind LED LIGHTING Experiences for Colleges & UNIVERSITIES

THE *Art* OF LIGHTING

By customizing LED fixtures, Vonn Lighting can create unique and eye-catching lighting solutions that are perfect for any space. Whether you are looking for a traditional chandelier or a modern pendant light, a lighting company can help you create the perfect fixture for your school or university.

We are proud to present you with a wide range of residential and commercial LED lighting products, are UL, ETL, CE, CSA Certified and Commercial Grade IC Rated.

VONN

wood, aluminum and vinyl products. With their proven ability to last for a century or longer, steel doors provide an unparalleled life cycle value.

• Eco-Friendly Coatings:
The most advanced pretreatment and finishing processes available for steel are lead free, contain zero hazardous air pollutants (HAPs), and have ultra-low volatile organic compounds (VOC), resulting in an earth-friendly product with unlimited color options and long-term protection against corrosion and abrasion. Steel finishing processes exceed the most rigorous testing standards and are carefully scrutinized to ensure products will perform, both aesthetically and functionally, for decades to come and with extremely low maintenance requirements.

LEED Certification

LEED certification provides a framework for recognizing and rewarding sustainable building practices. The integration of energy-efficient solid, hot-rolled steel windows and doors can contribute significantly to earning LEED credits. Categories such as Energy and Atmosphere, Materials and Resources, and Indoor Environmental Quality are particularly influenced by the choices made in window and door selection.

Strategies for LEED Credits

• Optimal Energy Performance.
Choose windows and doors with high-energy performance ratings to maximize energy savings.

• Materials and Resources.
Use recycled or locally sourced materials for window and door construction to earn additional credits.

• Indoor Environmental Quality.
Select windows and doors that enhance natural lighting and ventilation, promoting a healthier indoor environment.

As the construction industry continues to evolve, integrating energy-efficient solid hot-rolled steel windows and doors will become increasingly popular. The benefits extend beyond cost savings to encompass environmental stewardship and a commitment to creating spaces that prioritize the well-being of occupants. By leveraging these elements, builders not only enhance the overall efficiency of their projects but also position themselves for LEED certification, setting a new standard for sustainable construction practices.

ABOUT THE AUTHOR: Matthew Fuller is the National Sales Manager and LEED Green Associate at Hope's Windows, Inc., the largest domestic manufacturer of luxury steel and bronze windows and doors. Matt has worked in the custom steel window and door industry for 15 years.

From indoor to outdoor, 1000Bulbs has the perfect lighting solution for every university facility.

Offer Expires 12/31/23

Visit **1000Bulbs.com/edu** for

17% OFF your next order

1000Bulbs.com

- Over 50 US-Based Lighting Specialists
- Next-Day Shipping
- 275,000+ Square Feet of Inventory

See how we can help with all your lighting needs!

CALL US AT
844-750-0484

VISIT
1000BULBS.COM

CHAT WITH
AN EXPERT

Product Spotlight

BioFit Launches the FBT™ Series of Fold & Roll Booths

BioFit Engineered Products, a developer and manufacturer of ergonomic seating, tables and accessories, has introduced its FBT series of fold & roll booths designed to maximize versatility and functionality across private university and college campuses. Developed in collaboration with award-winning designer Bruce Fifield of Studio Fifield, Milan, Italy, the FBT series was designed to provide unique, versatile furnishing alternatives in learning, dining, and collaborative environments.

"The FBT series of fold & roll booths represents a transformative solution designed to meet the need for flexible furniture alternatives in fast-paced, ever-changing educational spaces," says BioFit President Jim Connell. "Working closely with Studio Fifield and after conducting focus groups with real-world users, we took an entirely different approach to addressing the challenges facing educators to rapidly transform spaces while enhancing student interaction."

For more information on BioFit and the FBT series folding booth, visit www.biofit.com.

Extron Introduces Powerful New USB-C Pro AV Dock for Unified Communications Spaces

In the evolving landscape of campus collaboration spaces, the integration of USB peripherals, including cameras and microphones, has becomes indispensable for effective meetings in Unified Communication (UC) spaces. Extron is pleased to introduce the UCS 601, a Pro 4K USB-C dock, that adeptly connects USB-C laptops to HDMI displays, supporting up to three USB devices, and ensuring seamless data rates of up to USB 1- Gbps.

"With USB cameras, microphones, and other peripheral devices becoming more common in small huddle spaces, we are always looking for innovative ways to streamline the meeting experience for end users," says Casey Hall, chief marketing officer for Extron. "The UCS 601 Pro 4K USB-C dock leverages the full power of USB-C connections by providing a single connection for video, USB data, and power for USB-C laptops. This takes small collaboration spaces with local and remote users to a new level."

Perfectly tailored for platforms such as Teams, Zoom, and other UC applications, the UCS 601 4K USB-C Dock is the optimal Pro AV docking solution for environments that require minimal AV hardware yet desire maximum functionality.

Extron designs advanced technologies to create better-looking images, higher-quality sound, and systems that are easier to control and work more reliably.

Visit www.extron.com to learn more.

Welcome to our inaugural Product Review feature. We heard your requests and will have a special section in every issue going forward. If you provide products or services that you would like to have in front of elite private higher education purchase decision makers, send us your products and services to be included in upcoming issues. You may send these to attention Ed Bauer at ed@pupnmag.com.

Thank you to our readers for letting us know what you want to see in your publication.

VIKING

We Stand Behind Our Products, Every Step of the Way.

- Access Control
- Area of Refuge
- Door Entry
- Hotline Phones
- IP Solutions
- Emergency Communication
- Enhanced Weather Protection
- VOIP Communications
- Mass Notification
- Paging Systems

YOU NEED A VIKING.

PUPN
2022 DEAN'S LIST AWARD

VIKING

715.386.8861
vikingelectronics.com

Product Spotlight

Rugged and Reliable IP Video Intercoms—the X-35 Series by Viking Electronics

VIKING
SECURITY & COMMUNICATION

The latest addition to Viking's tough and dependable line of access control products, the X-35 Series provides HD video and voice communication for SIP VoIP phone systems and service providers.

The intercoms feature a built-in HD video camera with H.264 video compression, low light sensitivity, and a wide viewing angle. Dual 1080p video streams can be viewed on a desktop monitor or IP video phone; with data stored locally on an NVR or remotely with a cloud storage provider.

A built-in auto dialer activates when the call button is pressed and will cycle through up to 5 pre-programmed phone numbers on busy signal or no answer. The intercoms feature an on-board relay with settings for access control, activating lights, or triggering door chimes and other relay-activated devices.

The X-35 intercoms are PoE powered and connect using an RJ-45 connection with CAT-5e cable. The units are ONVIF compliant and programmed via web UI.

For more information on the X-35 Series visit:
www.vikingelectronics.com/x-series/

COLLECT.
SORT.
TRANSPORT.

ROYAL®
BASKET TRUCKS
www.royal-basket.com
800.426.6447

ORGANIZE YOUR AUDITORIUMS & PERFORMING ARTS FACILITIES WITH FUNCTIONAL CART SOLUTIONS FROM ROYAL®. OUR CARTS ARE DESIGNED TO REDUCE CLEAN UP TIME, TRANSPORT LAUNDRY AND EQUIPMENT, AND KEEP YOUR FACILITIES LOOKING CLEAN AND PROFESSIONAL.

CHOOSE YOUR CART. **PICK YOUR COLOR.** **ADD YOUR LOGO.**

- 13 VINYL COLORS
- 7 MESH COLORS
- 9 POLY COLORS
- CUSTOM BRANDING & LABELING

CONTACT US TODAY! **WWW.ROYAL-BASKET.COM • 800.426.6447**

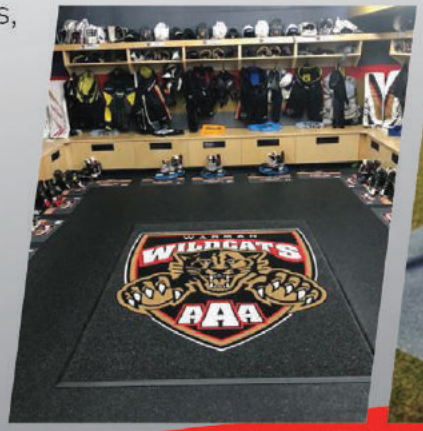
PO Box 1903
Pelham, AL 35124

Enhance Mats

Attention Coaches & Athletic Directors:

Unlock the secret to attracting top-tier talent—students, athletes, faculty, and staff—with our unparalleled branding solutions. Enhance Mats proudly partners with schools to deliver impactful branding that meets yourunique needs, all while staying cost-effective.

Join our nationwide campus branding initiative today and elevate your athletic team's recruitment game to new heights!



enhancemats.com

877-318-8625

Don't miss out on practice due to bad weather. Tunnel Armor's new Indoor Batting Cage Floor Protection is designed for the serious baseball player.

The 100% recycled top cloth is both durable and easy to maintain. Its foam backing helps protect the floor from impacts, while remaining light enough to store conveniently. Simply roll up and store on end when not in use.

The Red Clay Tunnel Hitting Zone is available for an enhanced, natural experience. With **Tunnel Armor** Floor Protection, you don't have to sacrifice protection for convenience. You get the best of both worlds.

TUNNEL ARMOR

Buy your Tunnel Armor Batting Cage Floor Protection today and watch your batting stats soar!