

retrofit

january-february 2019 // retrofitmagazine.com

* **Modern
Intervention:**
Pittsburgh's Union Trust
Building Renovation
Highlights Architectural
Riches + More Office Projects

* **TREND ALERT:**
phone booths

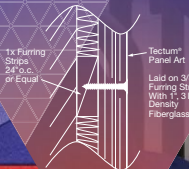
THIS
ISSUE
FEATURES
AUGMENTED
REALITY!
See Page 10

IMPROVING YESTERDAY FOR TODAY



THE FINE ART OF ACOUSTICS

Need a quieter space? Complement your acoustical ceiling with sound absorbing Tectum® Panel Art Walls for a more tranquil space with an artistic touch. The easy-to-install panels are the perfect retrofit solution to noise problems in exposed structure interiors. Learn more about Tectum® and the fine art of acoustics at armstrongceilings.com/tectum



TECTUM® PANEL ART WALLS AND OPTIMA® ACOUSTICAL PANELS / ARMSTRONG WORLD INDUSTRIES, LANCASTER, PA

Inspiring Great Spaces®

Circle No. 1

Armstrong®
CEILING & WALL SOLUTIONS

SMALLER FOOTPRINT. **BIG STEP FORWARD.**

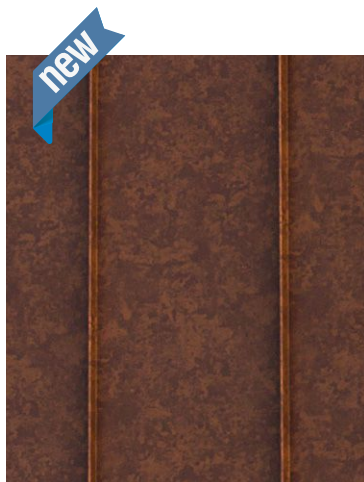


Introducing N-Generation CITY MULTI® VRF.
Greater efficiency with even more design flexibility.

Be the first to see N-Generation at AHR EXPO 2019, Booth C6105.
Learn more at NextGenVRF.com



Craig Ranch Phase III, McKinney, TX Installing contractor: StazOn Roofing Architect: JHP Architecture
Material distributor: Roofing Supply Group General contractor: Amicus Construction Owner: Lincoln Property Co. Photographer: Tom Coplen
Material: Steel coil Colors: Weathered Steel, Zinc



Weathered Steel Finish

"We really liked the Petersen product. It has a weathered steel look to it and yet it's affordable. We could get the color palette we wanted in a material that we could fabricate in whatever manner fit our design."

-J. Mark Wolf, AIA, Vice President, JHP Architecture



Case study at PAC-CLAD.COM/CRAIGRANCH

PAC-CLAD.COM | INFO@PAC-CLAD.COM

IL: 800 PAC CLAD MD: 800 344 1400 TX: 800 441 8661
GA: 800 272 4482 MN: 877 571 2025 AZ: 833 750 1935



Circle No. 3



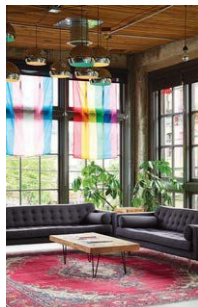
INSIDE THIS ISSUE

JANUARY-FEBRUARY 2019 // VOL 10 // ISSUE 1

➔ feature projects

TREASURE TROVE

Pittsburgh's Union Trust Building renovation highlights architectural riches and modern gems.



46

PERUSE OFFICE PROJECTS FROM AROUND NORTH AMERICA:

- 506 Carnegie Center, Princeton, N.J.
- Rancho Vista Corporate Center, San Diego
- Substantial, Seattle
- 1st Choice Savings & Credit Union, Lethbridge, Alberta, Canada
- 777 Aviation, El Segundo, Calif.
- Airport Square 13, Linthicum Heights, Md.
- International Brotherhood of Electrical Workers (IBEW) Local 134, Chicago
- Radio Flyer, Chicago
- Baker Center, Minneapolis
- Alorica, Owensboro, Ky.



← cover

COVER PHOTO: © ROBERT BENSON,
WWW.ROBERTBENSONPHOTO.COM

retrofit

INSIDE THIS ISSUE

JANUARY-FEBRUARY 2019 // VOL 10 // ISSUE 1



Special Report

18

2018 TOP 50 PRODUCTS

These products from our September-October 2017 to July-August 2018 issues earned the most inquiries from readers.

Component

62

METAL'S METTLE

Consider standing-seam metal roofing when seeking long-term performance and sustainability.



Transformation

68

THE SHOP

New Orleans' Contemporary Arts Center opens a coworking space for diverse tenants.

Trend Alert

74

CALLING FOR PRIVACY

The once-extinct phone booth is re-emerging as a solution to today's open (and noisy) offices. But does it go far enough?



DEPARTMENTS

16

NEWS // Learn what's happening in the retrofit marketplace.

82

INSPIRATION // Ware Malcomb assists with an architecture-inspired children's museum exhibit.

COLUMNS

10

POINT OF VIEW // Memories of youth are fun, but age certainly has its benefits.

➔ stay up to date

retrofit

Subscribe to **retrofit**'s weekly e-newsletter at www.retrofitmagazine.com. You'll receive the latest news, blogs and content you won't find in the magazine.

Quiet the noise. And the complaints.



SoundBreak XP
RETROFIT
BOARD

You don't have a noise problem, you have a wall problem. Now you can easily and affordably add a little peace and quiet with SoundBreak XP Retrofit®, a 5/16" gypsum board that installs over existing interior walls. This revolutionary new product significantly improves the noise-reducing qualities of your walls. Silence isn't golden — it's PURPLE.®

Technical Info: 1-800-NATIONAL or visit soundbreakxpretrofit.info

The color PURPLE® is a registered trademark of National Gypsum Properties, LLC

Circle No. 4

National
Gypsum

retrofit

January-February 2019 // VOL 10 // ISSUE 1

PUBLISHER

JOHN RIESTER

john@retrofitmagazine.com

DIRECTOR OF OPERATIONS

BECKY RIESTER

becky@retrofitmagazine.com

EDITORIAL DIRECTOR

CHRISTINA KOCH

christina@retrofitmagazine.com

MANAGING EDITOR

BECKY RIESTER

becky@retrofitmagazine.com

CONTRIBUTING EDITOR, INTERIORS

ROBERT NIEMINEN

EDITORIAL ASSISTANT

ANDREA HOFFMEIER

ART DIRECTOR

VILIJKA KRAJEWSKI

viljak@comcast.net

CIRCULATION MANAGER

LYN URE

lyn@retrofitmagazine.com

DIGITAL DESIGN DIRECTOR

RYAN WENGEL

WEB ENGINEER

DEREK LEEDS

ADVERTISING SALES

JOHN RIESTER

john@retrofitmagazine.com

(919) 641-6321

BARRETT HAHN

barrett.hahn@gmail.com

(919) 593-5318

DAN BURKE

dan@burkemediagroup.com

(732) 241-6720

EDITORIAL ADVISORY BOARD

NATHAN M. GILLETTE

AIA, LEED AP O+M, CEM
Director, Natura Architectural
Consulting LLC
Grand Rapids, Mich.

WILLIAM E. HOLLOWAY

AIA, LEED AP
Principal, BERNARDON,
Wilmington, Del.

JOHN J. NOONAN

Vice President of Facilities Management
Duke University, Durham, N.C.

RETROFIT // Vol. 10 // No. 1 is published bimonthly by Fisher Media LLC, 98 Booth Meadow Lane, Durham, NC 27713, (919) 641-6321. POSTMASTER: Send address changes to **retrofit**, 2409 High Point Drive, Lindenhurst, IL 60046.

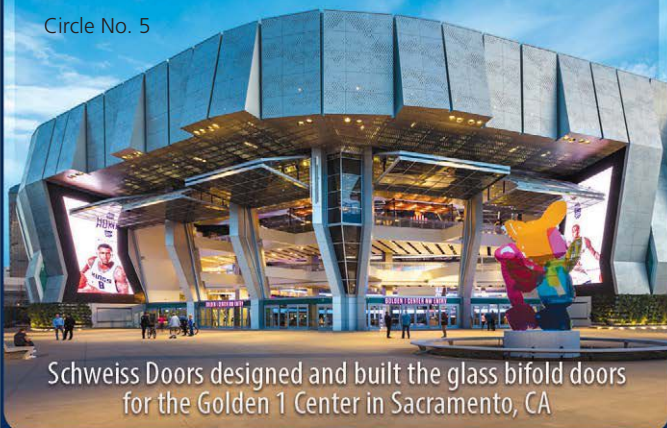
TO SUBSCRIBE or make subscription changes, visit www.retrofitmagazine.com, and click on the "Subscribe" button, or email lyn@retrofitmagazine.com.

SCHWEISS

HYDRAULIC & BIFOLD DOORS

Manufacturing custom designed one-piece hydraulic doors and lift-strap bifold doors ... any application ... any size!

Circle No. 5



Schweiss Doors designed and built the glass bifold doors for the Golden 1 Center in Sacramento, CA

SCHWEISSDOORS.COM



Make Every Step a Safe One..

NEW



Walk-A-Sured®



Circle No. 6

STAIRMASTER®



Wooster Products

For more products and information, visit us online or call:

www.wooster-products.com (800)321-4936

KD Navien

I N N O V A T I O N S



What's next?

Navien, the premier line of tankless water heaters, boilers and combi-boilers...has done it again. See what's next from the innovator in high efficiency hydronic technology at AHR 2019, booth B3075.

NavienInc.com

KD Navien®

The Leader in Condensing Technology

Circle No. 7



HEAD OF THE CLASS

I've had reunions on my mind lately. This summer my high-school graduating class will be celebrating a major milestone reunion. (I won't tell you which reunion this is because I don't want to give away classified information about myself!) Growing up, I attended a very small school—so small that I graduated with 22 other students whom I had known my entire life. There were a few negatives to going to such a small school. For example, only one foreign language was taught—and it wasn't Spanish. But there were many benefits too. I could (and practically did) participate in every extracurricular activity offered by the school, which gave me confidence to try many new experiences as an adult.

Although I moved away from my home area for college and went even further away to begin my career, I still participated in planning (and attended) our class reunions over the years. I always loved the opportunity to reminisce with my classmates—many of whom I consider members of my extended family—about our schooldays.

To prepare for our next reunion, I created a secret Facebook group so our class easily can communicate about dates and locations for the event. And to keep all of us thinking about the upcoming reunion, I dug out trivia questions I created for a much earlier reunion (so long ago many classmates don't remember the answers). I have been posting one trivia question about each classmate every week for #ThrowbackThursday, of course. It has given our class the opportunity to celebrate each individual during his or her week by sharing memories, photos, newspaper clippings and more. The trivia questions have spurred so many conversations, even a few offline, which has been incredibly fun (and funny!). But perhaps what has been most heartening is that the Facebook group has brought us all together again despite years and distance. Even classmates who have never bothered to attend a single reunion are conversing on the page and have said they will come to our next reunion. I'm thrilled by the positive response!

In this issue of *retrofit*, we're doing a reunion of sorts, as well. Our sixth-annual Top 50 Products, page 18, revisits the products you, our readers, wanted to know more about from our September-October 2017 to July-August 2018 issues. We love celebrating these top products not only because products are so integral to trade publications, but also because it's fascinating to see which products garner the most interest from readers. In addition, some of the Top 50 Products include retrofit stories, demonstrating how they solved a problem or achieved the desired result within a project. We hope you study these products (and projects) closely and consider them for your own upcoming projects.

In addition, I encountered Chuck Howard, P.E., owner of Metal Roof Consultants Inc., Cary, N.C., during *retrofit*'s second-annual conference in Charlotte, N.C., in October. (Learn more about the conference at www.retrofitconference.com.) Howard was an editorial advisor on an industry publication I previously edited, and he offered to write for *retrofit*. Knowing his breadth of experience in the metal roofing market, I suggested he write this issue's "Component" feature, page 62. In it, Howard discusses why standing-seam metal roofing should be considered for public buildings (and more structures). Even though I don't want to give away what high-school class reunion I'm about to attend, I'm grateful to have many years of experience in the design and construction market to call on industry friends, like Howard, to share their knowledge in this publication. Memories of my youth are so much fun, but age certainly has its benefits.

Christina Koch

CHRISTINA KOCH
Editor in Chief

➔ follow us



THIS ISSUE FEATURES AUGMENTED REALITY!

Download the free Layar Augmented Reality app. (The QR code will help you find the app.) Then, hover over pages 14, 21, 29, 65 and 84 with a smartphone or tablet and watch videos that bring the content to life.

layar

INTERACTIVE PRINT



Download the free
Layar App



Scan this page



Discover
interactive content



SAMSUNG

Wind-Free™* 4-Way Cassette

Gone with the wind.

The ATL is now Wind-Free™.

Visit Samsung at the 2019 AHR EXPO in Atlanta, January 14-16, to experience Wind-Free™ technology. The lack of wind will blow you away.

To learn more, visit **Booth C6331** and **SamsungHVAC.com**



HVAC. Built brave.

* The Wind-Free unit delivers an air current that is under 0.15 m/s while in Wind-Free mode. Air velocity that is below 0.15 m/s is considered "still air" as defined by ASHRAE 55-2013 (American Society of Heating, Refrigerating, and Air-Conditioning Engineers).
© 2018 Samsung HVAC

Circle No. 8



Flex-C Trac

Even Your Newest Guy Can Frame
Precise Curved Walls



John is that newest guy. Using Flex-C Trac, he is already building curved walls like a veteran.



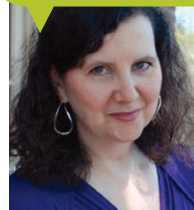
Circle No. 9

Pick up Flex-C Trac
at Your Local Distributor
and Start Framing

**FLEX-ABILITY
CONCEPTS**
The Curved Wall People™

Toll Free 866.443.FLEX
(866.443.3539)
www.flexabilityconcepts.com
MADE IN THE USA

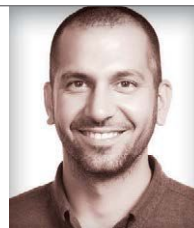
CONTRIBUTING WRITERS



KJ Fields, a Portland, Ore.-based **retrofit** contributor, writes our "Cover Story", page 38, about the 1917 Flemish-Gothic Union Trust Building in Pittsburgh's downtown, which had become little more than a passageway over the decades. Today, the once dingy and depressing interior offers work and play spaces, becoming a place where people want to be and be seen.



Chuck Howard, P.E., is owner of Metal Roof Consultants Inc., Cary, N.C., and has more than 30 years' experience providing commercial metal roof consulting and engineering. In "Component", page 62, he explains why standing-seam metal roofing is worth considering for public building projects (and more).



Hussein Alayyan, LEED AP BD+C, is an architectural designer with New Orleans-based Eskew+Dumez+Ripple Architects. He has acquired a significant portfolio of domestic and international work that reflects his interests in many building typologies, including residential, civic, interiors and urban design. In "Transformation", page 68, Alayyan describes his work on The Shop, a coworking space on the third and fourth floors of New Orleans' Contemporary Arts Center.

Whose Lives Are Counting On You?



The choices you make for your emergency lighting affect more than just the bottom line - they impact lives. Mothers, fathers, sons, and daughters are counting on you to make the right emergency lighting choices for their families and friends. We design and manufacture reliable, compatible emergency egress solutions that enable your lighting system to perform...not just on "Bid Day" but when it really counts.



Field-Installable
Emergency LED Drivers



Inverter Systems



Auxiliary Control
Devices



Emergency Lighting
...for the reasons that matter most

1-800-866-4682 www.iotaengineering.com

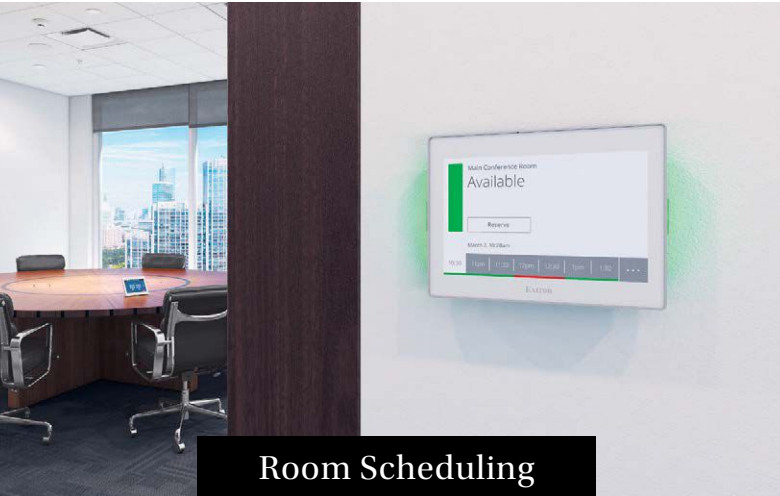
Circle No. 10



Collaboration



Control & Automation



Room Scheduling



AV Resource Management

AV Infrastructure For the Modern Enterprise

Extron Electronics is a leading provider of integrated audio-visual technology for applications ranging from classrooms, boardrooms, and lecture halls to medical facilities and control centers. For 35 years, our customers have trusted Extron solutions when they design AV systems for the commercial, government, education, and medical sectors.

Collaboration

Extron collaboration solutions empower groups of any size to quickly and easily work together, from wireless video presentations to seamless interactions with remote participants.

Room Scheduling

Extron Room Scheduling simplifies your room booking experience. With just a few taps on the stylish touchscreen or your mobile device, your meeting room is reserved. Insightful reporting features let you analyze room usage and activity patterns.

Control & Automation

Extron control systems simplify the operation of complex presentation environments. Our touchpanels, control processors, and control software work together to provide control solutions that are powerful, flexible and easy to use.

AV Resource Management

Whether you're working with 5 or 5000 rooms, GlobalViewer Enterprise software provides a powerful, flexible way to manage, monitor, and control AV devices over a standard network. GVE allows users to manage ever-expanding AV technology while leveraging valuable help desk resources.

Extron



An **uninterrupted** magnetic dry-erase steel writing surface with **nearly invisible seams** and a **sleek frameless edge design**



ENDLESS CREATIVITY.

UNLIMITED POSSIBILITIES.

WhiteWalls® Magnetic Dry-Erase Wall Panels



WhiteWalls.com

800-624-4154

Circle No. 12

EARLY WARNING WATER LEAK DETECTION

Installed in over 23,000 sites!

CEILING GUARD®



Circle No. 13

WATER ALERT®

**WATER ALERT
SENSOR CABLE**



- 5 Year Warranty
- Made in the USA
- In Business 40 Years
- Ultra High Quality

DORLEN Products Inc.

1-800-533-6392

WWW.WATERALERT.COM

ARTICLES ON

www.retrofitmagazine.com

BETTER BUILDINGS

Have you ever wondered about manufacturers' perspectives on industry issues? So have we! In 2018, **retrofit** launched the "Better Buildings" section of its website. In this section, **retrofit's** staff writers examine issues important to and directly impacting you, our readers, with guidance from manufacturers who have unique viewpoints into our industry. So far, **retrofit's** team has tackled the topics of building entrance security, flexible work stations and managing smart buildings. Expect more well-researched topics in 2019!

www.retrofitmagazine.com/category/better-buildings

BLOGS ON

www.retrofitmagazine.com

READ WHAT INDUSTRY EXPERTS HAVE TO SAY ABOUT RETROFITTING AND RELATED TOPICS.

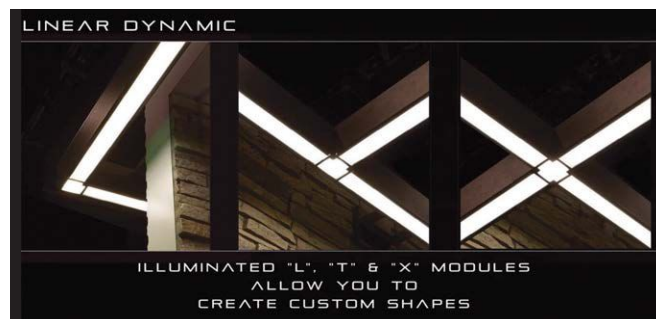
Since **retrofit** was established, industry experts have been sharing their insight about energy efficiency, technology, codes, green-building programs, natural disasters, products and more via **retrofit's** blog. New blogs are posted every two weeks and shared via our e-newsletter. The latest blog topics include:

- Are Drones the Secret to Jobsite Safety?
- Protect Your Business from Phishing Attacks with Security Awareness Training
- Adopt Quality Control Programs as Foundation for Healthy, Long-term Customer Relationships
- Reducing Taxes without Reducing Earnings

www.retrofitmagazine.com/category/blog

NOW PLAYING ON

retrofitTV.com



Linear without Limitation

Manufacturer Guidance

Housings of the Pursuit exterior linear luminaire from Architectural Area Lighting can be connected to form an uninterrupted ribbon of light up to 150 feet without any breaks or light leaks. Pursuit removes the need for separations by providing seamless continuous runs with IP68 end-to-end internal connections and a continuous, external diffuser. Learn more about Pursuit via a short video.



retrofit



Adams Rite Raises the Bar with EX Series Exit Devices

Adams Rite EX Series Exit Devices feature flexible, robust designs with simple and adjustable installation, providing a superior user-experience wrapped in beautiful aesthetics.

Adams Rite makes it easy to retrofit narrow stile aluminum and glass openings to upgrade your opening and improve safety and security.



EX88 Interlocking Rim Exit Device

Strong EX88 Interlocking latch compatible with Adams Rite 7800 Electric Strike for extra strength and durability.



EX89 Pullman Rim Exit Device

Uniquely rounded EX89 Pullman latch compatible with Adams Rite 74R1 Electric Strike for preload capable solution



EX80 Dummy Push Bar



EX76 CVR Exit Device

800.872.3267
adamsrite.com/exits



ASSA ABLOY, the global leader
in door opening solutions

Circle No. 14

National Database of Skilled Volunteers Is Created to Respond to Disasters

The International Code Council and National Council of Structural Engineers Associations (NCSEA) have joined forces to create the Disaster Response Alliance, a national, digital database of volunteers to assist local, state or federal entities who need skilled, trained and certified building-safety professionals in a disaster's aftermath. ¶ The U.S. has a number of skilled code officials, engineers and others across the country willing to step in to help with post-disaster safety assessments, building damage assessments, inspections and other code-related functions. The Disaster Response Alliance brings these skilled volunteers

together for easy access and quick mobilization. ¶ Local and state jurisdictions, as well as federal agencies, can contact the Disaster Response Alliance for help reaching skilled professionals from across the country willing and able to assist. This alliance combines the International Code Council's Disaster Response Network and NCSEA's Second Responder Roster. ¶ "A big thank you to NCSEA for joining with us to create the Disaster Response Alliance,"



says International Code Council CEO Dominic Sims, CBO. "The Code Council and our members have long been active in the aftermath of disasters to help communities in their times of greatest need. The increasing frequency and severity of

storms, including hurricanes Michael and Florence and the recent destructive wildfires in California, illustrated the need for this vital national database." ¶ For more information, to request help or to volunteer, visit www.disasterresponse.org.

GREEN BUILDING ACTIVITY CONTINUES TO GROW GLOBALLY

global green building activity continues to rise with significant increases expected in 19 countries during the next three years. Importantly, nearly half of survey respondents expect the majority of their projects in the next three years will be green buildings.

The study was conducted in 86 countries and surveyed 2,000 building professionals, including architects, contractors, consultants, developers, engineering firms and investors. Adjustments to the methodology for respondent recruitment resulted in a more balanced share of participants who belong to green building councils, compared to previous years.

As green building becomes more common, certification becomes more of an expectation in many markets. Although client demands and environmental regulations remain top motivators, creating healthier buildings emerged as an important trigger for green

The Washington, D.C.-based U.S. Green Building Council (USGBC) has announced the results of the Dodge Data & Analytics "World Green Building Trends 2018" SmartMarket Report, to which USGBC is a contributing partner. Overall,

building globally. According to the study, improving occupant health ranks first among social drivers for green building, followed by encouraging sustainable business practices and improved worker productivity.

"The future of green building is focused on performance but, as the study shows, most of the time this practice can be limited in scope," says Mahesh Ramanujam, USGBC's president and CEO. "There has been no increase in the use of metrics to track performance in the last three years, and now there is no excuse for it. It is not enough to demonstrate leadership at a point in time. We want all green buildings to continue to demonstrate leadership long after they are constructed and occupied. That is why USGBC has been laser-focused on bringing building-performance benchmarking tools, like Arc and LEED v4.1, to market: to make it easier for all projects to take strides toward improving the health and wellbeing of the people who occupy them every day."

To learn more, download the "World Green Building Trends 2018" SmartMarket Report at bit.ly/2SgunBJ. 



SEND US YOUR NEWS Email your news to christina@retrofitmagazine.com.



PREMIER BUTYL SEALANT TAPES

A LASTING DEFENSE

FOR OVER 30 YEARS, MANUFACTURERS AROUND
THE WORLD HAVE ENTRUSTED THEIR BUILDINGS'
MOISTURE DEFENSE TO THE MOST RELIABLE BUTYL
SEALANT ON THE MARKET, MB10A BUTYL TAPE.



800.288.9489

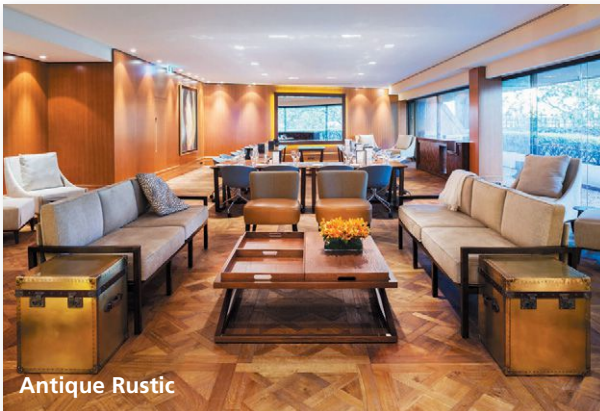
GSSISEALANTS.COM

Circle No. 15

2018 retrofit TOP 50 PRODUCTS

Products are an integral part of any trade publication. As such, **retrofit** is celebrating the 50 products that received the most reader inquiries from our September-October 2017 through July-August 2018 issues.

In addition, at the prompting of our editorial advisory board, we asked the manufacturers to share case studies about how their top products solved a problem or achieved the desired result within a retrofit. Although many of these products are fairly new, a few manufacturers were able to share actual retrofit projects in which their products were specified. Enjoy **retrofit**'s sixth-annual Top 50 Products!



Antique Rustic

1 PATTERNED HARDWOOD FLOORING INSTALLS IN PANELS

The Versailles collection from Havwoods International is a line of uniquely patterned hardwood flooring that consists of prefinished, pre-assembled panels, which make the line easy to install. The Versailles panels just need to be glued down to a secure subfloor. The collection is presented in five styles: Natural Rustic, Antique Rustic, Drift Rustic, Natural Character and White Character. Custom options also can be made.

www.havwoodsusa.com // Circle No. 16

3 ROOF BOARD RESISTS WATER AND ACHIEVES VERTICAL PULL STRENGTH

Georgia-Pacific Gypsum has unveiled DensDeck Prime Roof Board with EONIC Technology. Designed for enhanced water resistance and increased vertical pull strength, the roof boards feature manufacturing specifications that include a surface water absorption rate of 1 gram and a total water absorption rate of 5 percent. In vertical pull-strength tests, DensDeck Prime Roof Boards with EONIC Technology were found to be stronger than competitor boards on the face and back.

densdeck.com // Circle No. 18



4 ACHIEVE THE LOOK OF STEEL WINDOWS

Kolbe Windows & Doors has added radius direct set windows to its VistaLuxe Collection. The windows feature the slim lines, narrow frames and square details of VistaLuxe products. The slim lines, paired with optional black-painted interiors, can give the appearance of steel, at a lower cost and with shorter lead times. VistaLuxe radius windows are offered as stationary direct sets in Flush and Accent styles. Radius units are available in full circle, oval, half circle, quarter circle, segment head, quarter segment and other custom shapes.

www.kolbewindows.com // Circle No. 19



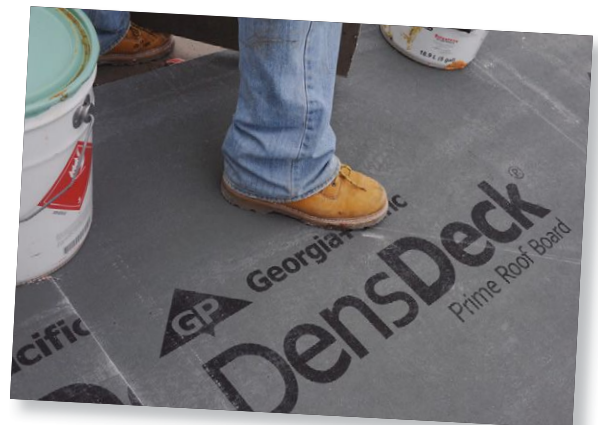
2 TRANSCEIVER SENDS AND RECEIVES DMX DATA

Acclaim Lighting has released its Aria Wireless DMX system, a compact, outdoor-rated wireless transceiver that can act as the sending and receiving point for DMX data. It provides up to 14 channels

on the 2.4 GHz band. Its internal wireless radio features mesh networking and signal routing optimization to ensure reception of data. It comes with a 5-decibel, omni-directional antenna, which provides transmission up to 2,600 feet line of sight and 300 feet between obstructions and walls. Aria can also make a direct connection to the Dyna Drum HO and Dyna Drum SO, which have the internal receiver built-in, without the need for an additional unit. The Aria Wireless DMX system operates in temperatures between -40 to 122 F and includes a five-year warranty.

www.acclaimlighting.com // Circle No. 17

Acclaim Lighting's Aria Wireless DMX first was used commercially in the renovation of Radio Flyer's Chicago headquarters. Read about the project on page 58.





Protecting our customer's assets for
over a quarter of a century



Thermoplastic Single Ply & Multi-Ply Roofing Systems

Flex has been committed to manufacturing the highest quality Elvaloy® KEE, PVC and TPO roofing products for the Commercial and Residential Roofing Markets. With over 28 years and more than 250 million square feet installed throughout the country, we have the knowledge and experience needed to meet all of your roofing system requirements.

- Flex Elvaloy® KEE
- Flex PVC
- Flex TPO
- Waterproofing Systems
- Green Roof Solutions
- Flex Deck Systems



COMMERCIAL



INDUSTRIAL



INSTITUTIONAL



HOSPITALITY

ROOFING SYSTEMS THAT STAND THE TEST OF TIME

Flex partners with roofing consultants and contractors to design and install systems that preserve energy, save the environment and last for decades.



Leader in Thermoplastic Roof Systems

See us at:

IRE, Nashville, TN, Feb. 11-13, Booth #2401
RCI, Orlando, FL, March 16-17, Booth #411

610-916-9500
FlexRoofingSystems.com





5 FOLDING GLASS SYSTEM OFFERS HURRICANE PROTECTION

NanaWall Systems has announced its hurricane system for mid-rise buildings: the NanaWall SL73 Miami Dade/AAMA Hurricane Folding Glass System. The NanaWall SL73 provides a large opening combined with hurricane protection for buildings of up to 8 to 10 stories. The system features clean lines with narrow stiles and rails to maximize glass areas. It has been tested to Miami-Dade County Protocols PA201 (large missile impact), PA202 (structural pressure, air, water, forced entry) and PA203 (cyclic pressure), as well as higher structural performance levels and static water testing required for mid-rise buildings. Thermally broken for energy efficiency, the SL73 has been rated, certified and labeled in accordance with NFRC 100 and 200.

www.nanawall.com // Circle No. 21

6 UPGRADE EXISTING ENTRANCE WITH ENERGY-EFFICIENT DOOR

The Mojave Series Advanced Thermal Storefront and Entrance System from CRL-U.S. Aluminum is engineered for thermal performance and compliance with stringent California Title 24 code requirements using the prescriptive and performance approaches. Mojave is NFRC-rated and utilizes polyamide struts alongside optional advanced internal insulation to mitigate heat transfer. The doors feature a traditional depth of 1 3/4 inches, which is compatible with a wide range of architectural hardware. This makes the Mojave Series suitable for upgrading existing entrances. The system can be customized with stainless-steel cladding to produce a high-end aesthetic.

www.crl-arch.com // Circle No. 22



7 LIQUID-APPLIED COATINGS PROTECT WALLS, MAKE ROOFS REFLECTIVE

Kemper System America Inc. now offers *Wall Guardian* FW-100A, a liquid-applied fibered acrylic air barrier that also acts as a water/weather barrier and vapor retarder. *Wall Guardian* FW-100A has been evaluated by the Air Barrier Association of America and exceeds ASTM E2357 (Standard Test Method for Determining Air Leakage of Air Barrier Assemblies) with an air leakage rate 100 times better than the test requirement. Notably, the liquid-applied air barrier exceeded the standard in a single coat at 40-mils wet film thickness (40 square feet per gallon). The engineered system is designed to resist air and water infiltration, saving energy and preventing moisture buildup that can lead to mildew and mold. *Wall Guardian* FW-100A can be applied to building material surfaces with a heavy-duty sprayer, roller or brush.

www.kempersystem.net // Circle No. 23



8 UPGRADE GAS STATION CANOPY LIGHTING WITH LED

The LSI SCOTTSDALE VERTEX LED Gas Station Canopy Luminaire features combined optical distributions (Symmetric, plus Symmetric Combination Forward Throw, which eliminates the need for supplemental flood lighting between canopy and C-Store), five lumen packages (10K, 13K, 15K, 20K, 23K), field serviceability, silicone optics (shatterproof, non-yellowing and lightweight) and simple installation. This low-profile canopy fixture is available with a wide variety of retrofit accessory solutions. It is dimmable; wireless controls are available; and it comes in white, black and bronze standard finishes.

lsi-industries.com/vertex // Circle No. 24





9 CARPET TILE'S VARIATION CREATES VISUAL DEPTH

Patcraft has released its latest carpet tile collection, Gradient Form, which captures the change in gradation and scale by using the effects of variation to create a shift in visual elements. Available in 12- by 48-inch planks and nine neutral colorways, the collection includes three styles—Rise, Run and Slope. The plank format allows for self-patterning, highlighting elements of interest through changes in gradients. The neutral colors incorporate a metallic yarn to add visual depth and luster. Constructed with Eco Solution Q and EcoWorx backing, Gradient Form is Cradle to Cradle-certified. Products are backed with lifetime warranties against stain, static and abrasive wear, as well as for colorfastness to light.

www.patcraft.com // Circle No. 25

10 COAT MASONRY TO RESIST DIRT

Sherwin-Williams has launched Loxon Self-Cleaning Acrylic Coating, a product specifically engineered for exterior, above-grade masonry to provide a clean and attractive look with high-performance protection. The self-cleaning formula sheds dirt with rain or water contact and provides durability and water shedding, as well as wind-driven rain and dirt-pickup resistance. In addition to stucco, masonry and cement board, Loxon Self-Cleaning Acrylic Coating can be applied directly to bare or previously coated concrete that is at least seven days old, has a pH of 6-13, in temperatures down to 35 F. Meeting VOC regulations, the product is available in a flat sheen in a wide range of colors.

www.sherwin-williams.com // Circle No. 26



11 LOW-PROFILE LEDS ARE SUITED FOR CANS AND BOXES

Super Bright LEDs now offers 7- and 9-inch low-profile LED panel lights/can light retrofits. They can be used with 4-, 5- or 6-inch existing cans or can be mounted directly into round or octagonal junction boxes. Designed for residential and commercial lighting applications, the 12- and 18-watt LED cans emit 1,000 or 1,600 lumens of dimmable natural white illumination, which is comparable to 100- and 160-watt incandescent fixtures, but last approximately 25 times longer. Each light has junction-box mounting hardware and an E26/E27 Edison screw base adapter; can light mounting hardware is sold separately.

www.superbrightleds.com // Circle No. 27



12 HEAT SPACES AND WATER SIMULTANEOUSLY WITH COMBINATION BOILER

The Noritz Residential Combination Boiler (NRCB) allows for simultaneous residential domestic hot water and space heating and performs at a 95 percent annual fuel utilization efficiency. The NRCB's 316L copper primary and secondary heat exchangers provide corrosion resistance, resulting in increased durability and a longer lifespan. A third flat plate heat exchanger for domestic water heating is made of stainless steel. The NRCB is available in two models: NRCB180DV and NRCB199DV. The former has a maximum gas input Btu/h of 180,000 for hot water and 100,000 Btu/h for space heating. Its maximum flow rate is 9.8 gallons per minute (gpm). NRCB199DV has a maximum gas input Btu/h of 199,000 for hot water and 120,000 Btu/h for space heating. Its maximum flow rate is 11.1 gpm.

www.noritz.com // Circle No. 28



View a video that explains why the Noritz NRCB was chosen as replacement equipment for an apartment complex in San Marcos, Calif.

13 MANAGE STORMWATER WITH PRE-VEGETATED ROOF TRAY

American Hydrotech has introduced its InstaGreen GT-4 pre-vegetated tray, which consolidates growing media, drainage and vegetation in one package for easy transport and installation by roofing professionals and landscape contractors. The 12- by 24-inch tray, which is composed of 100 percent recycled content, can hold up to 4 inches of media for plant growth. Its reservoir base design allows for increased water capacity and sustained plant growth in times of drought. Integral connector clips form a unified, seamless, vegetated surface and resist wind uplift. Vegetation options for the InstaGreen GT-4 tray are a standard sedum species blend designed to accommodate the rooftop conditions. A range of perennials also can be added to provide increased color, texture and habitat.

www.hydrotechusa.com // Circle No. 29





15 ADD VOICE AMPLIFICATION TO CLASSROOM AV SYSTEMS

Extron Voicelift Pro Microphone enhances the classroom experience for students and teachers by ensuring a teacher can be heard clearly throughout a classroom while speaking at a natural level that avoids voice strain. VoiceLift Pro utilizes RF wireless digital transmission and pairing in a dedicated spectrum. RF technology is not susceptible to environmental factors, such as windows, sunlight and fluorescent lighting, which create problems for infrared systems. It also does not suffer from the licensing restrictions and proximity issues of traditional RF microphones. VoiceLift Pro integrates with any PlenumVault, WallVault or PoleVault installation, providing a complete classroom AV and voice amplification solution. The VLM 3001 system includes a pendant microphone, receiver and charging station, as well as cables necessary for connecting to an Extron Classroom AV System.

The VLM 3002 adds a second pendant microphone while the VLM 3002H adds a handheld microphone.

www.extronclassroom.com // Circle No. 31



VLM 3002H



14 SYSTEMS DELIVER ENERGY-EFFICIENT HEAT IN COLD CLIMATES

LG Air Conditioning Technologies is adding LG "Reliable to Extreme Degrees" (RED) heating technology to more products, including the Multi F and Multi F MAX multi-zone outdoor units. LGRED provides 100 percent rated heating capacity down to 5 F with continuous operation down to -13 F. The multi-zone systems have the option to be installed fully ductless for optimal performance or combined with ducted systems for increased design flexibility. The LGRED Multi F systems also feature a SEER rating of up to 21, qualifying them for ENERGY STAR certification, as well as eligibility for participating local utility company rebates.

www.lgredheat.com // Circle No. 30

16 REPAIR, RESTORE ROOF WITH SOLVENT-BASED COATING

The SEBS Roof Coating System from Mule-Hide Products Co. combines high tensile strength, elasticity, low moisture permeability and resistance to ponding water, making it suitable for a wide variety of roof repair and restoration applications. The solvent-based coating system is designed primarily for use in repairing and restoring metal roofs but also can be used on asphalt, concrete, EPDM, Hypalon, Kynar, modified bitumen, PIB and TPO roof systems. The coating system includes a primer, base coat, roof coating for the specific roof type, seam sealer and multipurpose sealant. Antioxidants and light stabilizers ensure the coating system's durability throughout the roof system's service life.

www.mulehide.com // Circle No. 32



17 NEW COLORS FOR FIBER CEMENT PANELS RESEMBLE WOOD

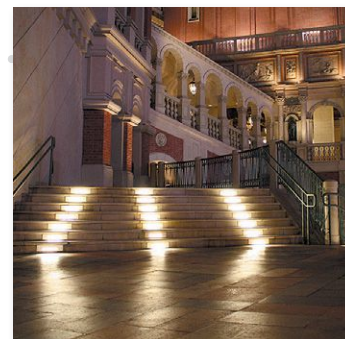
Nichiha USA Inc. has added two colors to its Wood Series: Redwood and Ash. The colors, which were the result of extensive market research, join Cedar and Bark in Nichiha's VintageWood lineup within the Wood Series. In comparison to natural wood siding, VintageWood offers the same texture, ease of installation and cost. However, VintageWood is resistant to warping, rotting, delamination and pests. It also comes with a built-in rainscreen. The Wood Series panels can be installed vertically or horizontally in interior and exterior applications. Nichiha also provides a limited lifetime warranty on its products.

www.nichiha.com // Circle No. 33

18 STEP LIGHTS RESIST WATER INFILTRATION

Amerlux has launched Passo step lights, which boast an independently sealed LED Optical Chamber to eliminate water infiltration. The luminaires are typically used for steps, staircases and in walls to light walkways and add aesthetics to building façades. Passo offers a wide selection of sizes, faceplates, color temperatures and light outputs to meet the specifications of many projects. The step lights are available in 8- and 12-inch rectangular shapes for retrofits. Each luminaire is available in a choice of two output levels to tailor the desired illuminance for the project.

www.amerlux.com // Circle No. 34



19 SEALANT IS SUITABLE FOR VARIOUS INDOOR, OUTDOOR APPLICATIONS

Bostik Inc. has introduced Bostik Bosti-Flex Plus, a siliconized acrylic latex sealant. The product has been developed for multi-purpose applications that include countertops, door frames, shower surrounds, sinks, tubs, windows and bonding applications for ceramic tile, natural stone and wood trim. Bosti-Flex Plus is available in six colors, complementing various Bostik grout colors, and may be painted with latex or oil-based coatings. For interior and exterior applications, Bosti-Flex Plus is mold- and mildew-resistant, provides elasticity for flexible joints, emits zero VOCs, and is easy to apply and clean. The product is offered in a case consisting of 12, 10.1-ounce cartridges.

www.bostik.com/us // Circle No. 35



20 POLYISO PRODUCTS ELIMINATE HALOGENATED FLAME RETARDANTS

Carlisle SynTec Systems has made available its InsulBase NH and SecurShield NH polyiso insulations. These products provide the same performance characteristics as standard polyiso products but contain no halogenated flame retardants. InsulBase NH and SecurShield NH are Living Building Challenge "Red List Free" with Declare label and product database listing, can contribute to LEED v4 points and are California Department of Public Health VOC emissions-compliant.

www.carlisesyntec.com // Circle No. 36



ZIPWALL®

DUST BARRIER SYSTEM

800-718-2255

Start every job with ZipWall®.

- Sets up in just a few minutes
- No ladders, no tape, no damage

See how easy it is at zipwall.com.



Circle No. 37



21 RENEWABLE ENERGY BATTERIES NOW INCLUDE FLAT TOP COVER

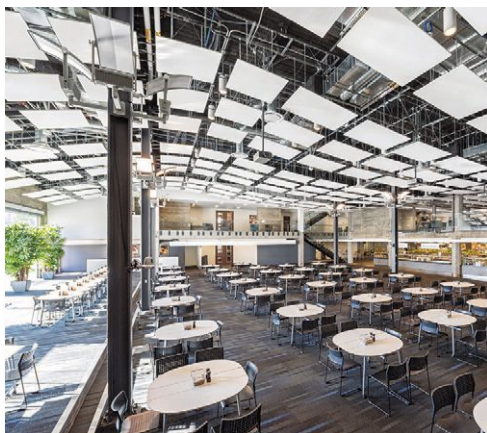
Sun Xtender 12 Volt Group 31 batteries, manufactured by Concorde Battery Corp., now include a flat top cover and lifting handles. The flat top cover was designed to be compatible with standard hold-down configurations and eliminates the need to modify hold-down apparatus or revise cable routing; terminals now are more accessible. The new cover also incorporates removable ergonomic lifting handles to reduce installation difficulty without causing interference. This upgrade affects the following 12-volt part numbers: PVX-890T, PVX-1080T, PVX-1180T, PVX-1290T and PVX-1530T.

www.concordebattery.com // Circle No. 38

22 HEAT RECOVERY SYSTEMS ARE ENGINEERED FOR HEATING-DOMINANT APPLICATIONS

Daikin North America LLC has released its Daikin VRV AURORA 230/460V Heat Recovery Systems. The systems are engineered and optimized for cold-climate and heating-dominant applications; the VRV air-cooled system delivers efficient heating down to -22 F. The series is available in 6-, 8- and 10-ton single modules and 12-, 16- and 20-ton multi-module systems. The VRV AURORA features refrigerant-cooled efficient and stable inverter board operation, independent of ambient conditions. The systems' hot gas base pan circuit allows installation without an additional condensing unit base pan heater. The series comes with a standard 10-year limited warranty.

www.daikinac.com // Circle No. 39



23 ACOUSTIC PANELS ARE DESIGNED FOR EXPOSED STRUCTURES

Armstrong Ceiling & Wall Solutions has expanded its portfolio of acoustical solutions for exposed structure environments. The Spotlight acoustic solutions are suspended below the deck and feature dozens of blades, baffles, clouds and canopies to reduce noise and visually define a space. When installed in a manner that covers 5 to 50 percent of the deck, the panels absorb sound from all sides. InvisAcoustics Basics ceiling panels also have been expanded. With a noise reduction coefficient of 0.75, the panels absorb 75 percent of the sound that hits them. They attach directly to an exposed structure's deck and can be field painted to match. Other direct-to-deck acoustic solutions include Capz and Tec-tum panels, as well as a direct-attach option for SoundScapes Blades vertical panels.

www.armstrongceilings.com/exposedstructure // Circle No. 40

24 MODULAR METAL PANEL SYSTEM ACCOMMODATES SLOPED PANEL DEPTHS

CENTRIA's Intercept modular metal panel system, Intercept RZR, is a rainscreen system that can accommodate a sloped panel depth up to 4 inches and can integrate with Intercept Entyre and Intercept LVLZ for dynamic aesthetics. Available in horizontal and vertical applications, the panels can be specified in zinc or aluminum substrates and in depths of 1 3/8 to 4 inches. Panel lengths can be up to 138 inches (aluminum) or 120 inches (zinc) and up to 48 inches (aluminum) and 32 inches (zinc) wide. Several colors are available, as well as a range of finish options. In addition, the panels can be paired with the company's Metal-Wrap Series insulated composite backup system to meet thermal and moisture performance requirements.

www.centriaperformance.com/intercept // Circle No. 41



25 LINEAR, PERIMETER AND RECESSED LUMINAIRES ARE COMPETITIVELY PRICED

Hubbell Lighting's Litecontrol has launched a portfolio of architectural-grade products as part of its reinvigoration of the "SAE" (Simple. Affordable. Efficient.) Program. The SAE Program addresses a market gap for competitively priced luminaires in the linear, perimeter and recessed categories. All nine SAE products feature Litecontrol's Variable Intensity (Vi) Technology, which helps specifiers match output or power, in 50 or 100 lumen increments, to meet needs whether indirect or direct output. The rectilinear SAE101, SAE103 and SAE104 and curved SAE102, SAE105 and SAE106 are small-scale, modern pendants with versatile performance options and efficacy up to 162 lumens per watt for indirect and 113 lumens per watt for direct. The SAE201 is an architectural-grade concealed cove luminaire, which features an adjustable beam angle that can be manipulated pre- or post-installation. The SAE202 is a recessed wall/slot luminaire designed for perimeter lighting needs. The SAE301 is a versatile, recessed, direct enclosed troffer, available in three sizes.

www.litecontrol.com // Circle No. 42



26 CONDENSING BOILERS CAN BE CASCADED TOGETHER

Weil-McLain now offers its advanced high-efficiency Evergreen condensing boiler line in 70, 110 and 115K Btu/h input sizes, joining the existing 220, 299 and 399 sizes. The 95 percent AFUE boiler features a guided setup wizard, easy-to-understand graphical user interface, simple controls and 10 heating system pre-sets for quick setup. It also has the ability to cascade two to eight boilers together and ZoneStacking up to 24 programmable zones with no external panel required. In commercial applications, optimal energy-efficiency yields reduce energy costs with up to 96.5 percent combustion efficiency. Three multiple-boiler sequencing options are smart mode, series mode and parallel mode. Units may be wall-mounted or floor-standing, use natural or propane gas, and each features a stainless steel, fire-tube heat exchanger with a non-metallic base.

www.weil-mclain.com // Circle No. 43



With a failing water heater and an old, inefficient boiler, Belmont Harbor Condominium, a 20-unit building on Chicago's north side required major upgrades to its heating system. The 3-story building featured a 1 million-Btu boiler operated via an outdoor reset control and a 400,000-Btu/h direct water heater with a 100-gallon storage tank. The individual condo units were heated by hot-water baseboard heaters.

"The skin of the water heater was melting and deforming, and the unit was leaking," recalls Mike Nowak, president of the condo board. "It also caused the boiler room to become extremely warm because the unit was always on and not venting properly. The boiler was way past its expected life and the heat output very inefficient. It operated continuously, especially if it was less than 56 degrees outdoors."

Some residents complained about excessive heat, especially those who lived above the boiler room. Others complained about not having enough hot water.

Chicago-based Hayes Mechanical, which handled repairs to the building's HVAC system for years, was selected to handle the heating upgrade. Hayes Mechanical installed two 96.5 percent AFUE Evergreen 399 MBH boilers from Weil-McLain as a Multiple Boiler System using a Modbus communication feature. In this lead-lag configuration, a master boiler controls the modulation and sequencing of boilers on the network to achieve the desired system supply temperature. Both operate at the lowest rate to optimize efficiencies, and they function with a built-in controller so no additional controls are needed.

The upgrade also included the installation of two Weil-McLain 80-gallon Aqua Plus indirect-fired water heaters to replace the existing direct-fired water heater and storage tank.

"The heat is very comfortable and building occupants are happy about that and appreciative of the ample supply of hot water now available," Nowak says. In addition, the facility has realized a total fuel savings of 42 percent with the new system.





27 BRICK IS AVAILABLE IN DARK COLOR

Eldorado Stone has released a new color, Ironside, to the TundraBrick collection. TundraBrick is a classically shaped profile with surface character. Slightly squared edges are chiseled and worn. Tundra-Brick is roughly 2 1/2-inches high and 7.875-inches long. The rich, dark tone of Ironside adds a matte black option accentuated with red undertones to the characteristic brick profile and is suitable for adding depth to darker design palettes.

www.eldoradostone.com // Circle No. 44

28 WINDOWS CAN BE ASSEMBLED AS CLERESTORY WINGS OR PUNCHED OPENINGS

Providing natural light and natural ventilation, TECHVENT 5300 window systems from EXTECH feature a patented, top-hinge design that allows the unit to remain open during normal rainfall while keeping the interior dry. The windows can be operated manually or electrically and can be integrated with building control systems. Units typically range from 3- to 8-feet high. The system can be factory assembled with interlocking vertical mullions for installation as continuous clerestory wings up to 150-feet wide or as smaller, individual "punched" openings. The units, which accept up to 1-inch-thick glass or cellular polycarbonate glazing, can be used as operable skylights when installed on a slope. The framing system uses 38.95 percent recycled aluminum as standard and may be specified in a broad choice of finish types and colors. After its useful life as part of a window system, the metal is 100 percent recyclable.

extechinc.com // Circle No. 45



29 GYPSUM BOARD DAMPENS SOUND WITHOUT DEMOLITION

Improve sound dampening between rooms without the need for disruptive demolition with Gold Bond brand SoundBreak XP Retrofit from National Gypsum. The 5/16-inch sound-dampening gypsum board features a viscoelastic polymer adhered to the back paper. This high-density material is encased in heavy mold-, mildew- and moisture-resistant PURPLE face paper. It can be installed over an existing interior gypsum board wall where noise from adjacent spaces is a concern. It also provides a thinner wall assembly without sacrificing square footage.

soundbreakxp retrofit.info // Circle No. 46



30 BI-FOLD DOOR IS DESIGNED TO RESIST HURRICANE FORCES

In response to the record year for hurricanes in 2017, Sierra Pacific Windows has debuted its FeelSafe Bi-fold Door for large, expansive openings. In coastal areas, there's often a balancing act between embracing the view and building with strength to overcome storms. Sierra Pacific's FeelSafe Bi-fold doors are true aluminum clad exterior/wood interior bi-fold doors that meet Zone IV HVHZ requirements. With a 2 1/4-inch-thick panel, the FeelSafe Bi-fold door strikes a balance of storm protection and view maximization.

sierrapacificwindows.com // Circle No. 47



SloanStone® sinks now have more designs than ever before

SloanStone Sink Systems are the ultimate high-traffic commercial restroom solution. Available in multiple designs and colors to fit any application, now with three new models. Pair them with Sloan faucets and matching soap dispensers for superior style and performance. The Arrowhead design comes to a slight point with an open front edge for a modern aesthetic.

Visit sloan.com/sloanstone or call **800.982.5839**

Shown: **SloanStone ELA-82000** sink with **Combination ESD-501** (EFX-250 Faucet and ESD-500 Soap Dispenser).



31 LONG BRICK FEATURES DISTRESSED FINISH

Arriscraft has made available its Architectural Linear Series, elongated bricks for the North American architectural community. The long brick features a distressed finish that is suited for modern designs with rustic appeal. Architectural Linear Series brick is 2 3/8-inches high by 23 5/8-inches long (depth is standard at 3 3/4 inches). The brick is available in four standard colors: Charcoal, Midnight Grey, Obsidian and Opal. Arriscraft's Natural Process technology uses natural materials plus color pigments and replicates how stone is created in the Earth.

www.arriscraft.com // Circle No. 49

33 STOP UNAUTHORIZED ENTRY THROUGH SWINGING DOORS

Boon Edam Inc. has released the Circlelock Combi mantrap portal solution that prevents unauthorized entry into high-security areas by attaching to existing fire-rated swinging doors. The retrofit option was designed to address unauthorized entrants "piggybacking" behind an authorized person through a swinging door. The cylindrical solution has a single sliding door on one end and an opening on the other end that is mounted to an existing

wall and swing door. The Combi uses Boon Edam's StereoVision2 detection technology in the ceiling to scan the compartment and ensure a user is alone prior to unlocking the swing door. Security managers can choose to prevent piggybacking for inbound and outbound traffic. The Circlelock Combi can process five to six people per minute.

www.boonedam.us // Circle No. 51



32 CONTROL UP TO 35 LED FIXTURES WITH DIFFERENT SCENES

B.E.G. Controls has unveiled RATIO, an unobtrusive architectural solution for scene control. RATIO uses three components—a FLAT sensor, small power supply and matchbook-size push-button controller. Less than 1-millimeter thick, the FLAT is a completely flat occupancy sensor/photocell. The power supply can be installed on the first fixture receiving power, and the push-button controller easily fits in a single gang switch box and utilizes any style of momentary switch from any manufacturer. RATIO can control as many as 35 LED fixtures, utilizing intelligent drivers with up to 16 different groups or scenes. The scenes on a RATIO solution can be programmed using Bluetooth with a free app from B.E.G. Controls.

www.begcontrols.com // Circle No. 50



34 MOUNTING STANDS ALLOW HEATING UNITS TO BE PLACED ANYWHERE

Cambridge Engineering has launched a line of vertical and horizontal stands to accompany the company's heating and make-up air units. The accessories come after Cambridge's move in 2017 to standardize the vertical versions of its two main product lines, the S-Series space heaters and the M-Series make-up air units. The mounting stands allow maximum flexibility for retrofit and new construction projects. No field cutting or rework is required, saving time and labor.

www.cambridge-eng.com // Circle No. 52

35 CONTROL NOISE IN HOTEL ROOMS

K.R. Moeller Associates Ltd. has launched MODIO, a device specifically designed to address hotel noise. Using a sound similar to soft airflow, MODIO covers up intruding noises or reduces their disruptive impact by minimizing the amount of change between volume peaks and the guest room's baseline background sound level. In the past, guests tried unsuccessfully to use the HVAC system, white noise apps or other gadgets in this manner. A commercial-grade masking system, like MODIO, properly generates sound, adjusts it via effective volume and frequency controls, and produces it over a high-quality loudspeaker. MODIO can be attached to the back of a TV, a wall or furnishing in minutes.

www.modio.audio // Circle No. 53



55% OF TRAVELERS LOOK FOR REVIEWS THAT SPECIFICALLY ADDRESS SLEEP QUALITY.



36 CONTROL MULTIPLE BUILDINGS ANYWHERE IN THE WORLD

Lutron Electronics has announced Enterprise Vue, a single data and management platform for multiple Lutron systems across corporate and university campuses, retail locations, or hospitality and restaurant spaces. Enterprise Vue gives facility managers real-time control of multiple buildings—whether they are all in one location or scattered around the world—by integrating data from Lutron’s Quantum and Vive systems. Using a multi-building dashboard, facility managers can configure, monitor, analyze, report, and act upon the data provided across all Quantum- or Vive-

enabled buildings at an enterprise level. This new offering supports Lutron’s mission to simplify smart building technology and ensure that more spaces can be IoT-enabled and easily controlled.

www.lutron.com/quantum // Circle No. 54

37 WINDOW SHADES OFFER NEW FABRICS IN BLACKOUT RANGE

Phifer Inc. now offers new fabric options in its SheerWeave Style 7500 blackout range. Seven new colors have been added across popular neutral tones. In addition, Style 7500R now is available in response to growing demand for a lower-cost option where commercial fire certifications are not required. Style 7500 is PVC-free coated, polyester blackout fabric that maintains quality at an economical price. Suitable for roller shade and panel track systems, the window treatment fabrics are available in a neutral, 12-color palette. Style 7500 and new Style 7500R are stocked in 118-inch width. All Style 7500 fabrics are certified to GREENGUARD standards.

www.phifer.com // Circle No. 55

38 SOLID SURFACE SINKS AVAILABLE IN NEW MODELS

Sloan has introduced three models to its SloanStone line of molded, solid-surface sinks. Engineered for high-traffic environments, SloanStone sinks are vandal-resistant and feature a single-molded basin with non-porous surfaces for a hygienic environment that can be easily serviced. The sinks are suitable for wall-mount applications and are designed to pair with Sloan faucets and soap dispensers. Fourteen SloanStone sinks now are available, including Round Front ELRF Series for restrooms frequented by children and Arrowhead ELA Series, which features a slight point and an open front edge. The new models can be paired with any of Sloan’s faucets and seven new matching sensor-activated soap dispensers for a cohesive on-deck aesthetic.

sloan.com/sloanstone // Circle No. 56



Circle No. 57

CROWN

INNOVATIVE HYDRAULIC DOORS AND WINDOWS
ARCHITECTURAL / COMMERCIAL / RESIDENTIAL

www.crowndoors.com | (320) 238-2616 | info@crowndoors.com

39 WINDOWS MAINTAIN HISTORIC INTEGRITY OF LANDMARKS

St. Cloud Window Inc. has introduced the SCW3000 Series, a line of historic replication/narrow sightline windows and terrace doors. The SCW3000 Series is designed around a 3-inch frame engineered to maintain a narrow sightline profile yet facilitate the structural needs of large window openings and maintain the historic integrity required for landmark properties. It is available for awning, hopper, casement and fixed applications, as well as floating vent fenestrations that are common in buildings of historic significance. The new window boasts 45 STC and 36 OITC (without the need for an acoustic interior panel) and thermal values ranging from 0.23 to 0.31 U values and 0.16 to 36 SHGC values.

stcloudwindow.com // Circle No. 58



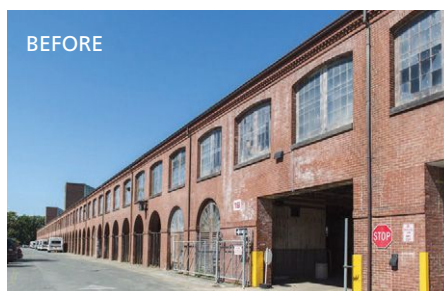
In 2013, representatives of Springfield Community and Technical College, Springfield, Mass., determined that facilities for student life and services were lacking. The college turned to Building 19, a historic former armory in the heart of campus. Built as a storehouse for gunstocks more than 170 years earlier, it was never fully enclosed. Major updates would be required to make it an accessible, usable space.

Building 19 is part of the Springfield Armory National Historic Site, one of 13 buildings on the college campus listed on the National Register of Historic Places. It was closed and given to the college in 1968. However, because of the old infrastructure and the many considerations that go into renovating and remodeling historic sites, it sat largely unused for nearly 50 years.

One of the largest challenges in updating Building 19 was its windows. First, the building is 767-feet long and 3-stories high. The fenestration made up nearly 50 percent of the building's façade, a total of 552 windows. In addition, no two windows were alike; openings ranged from 10 by 7 feet to 10 by 13 feet.

The architect turned to St. Cloud Window Inc. and the SCW3000 Series to update the windows while maintaining the historic look of the building. St. Cloud Window worked with the National Park Service and the Massachusetts Historical Commission to develop the fenestration, fully enclosing the building while maintaining natural light. In addition, historical louvers originally designed for ventilation were retooled as exterior sunshades to minimize heat.

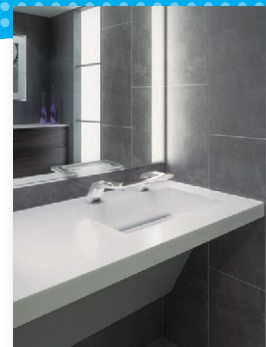
Today, Building 19 is an accessible, sustainable and vibrant part of campus life. It houses administrative offices, a student commons, student services, a health center, café, study spaces, a library and campus bookstore.



40 SOAP, WATER AND DRYER IN ONE FIXTURE

Bradley Corp. has combined its touchless handwashing feature with its line of OmniDecks. The WashBar, originally launched with Bradley's Verge wash basins, is comprised of a single piece of chrome-plated stainless steel that combines soap, water and dryer in one fixture. LED lighting and easy-to-identify icons on the WashBar help to visually orient the user through the handwashing process. The WashBar's streamlined design eliminates the cluttered look of three separate components, complementing the OmniDeck's aesthetic and elevating its washroom flexibility. WashBar technology also saves on maintenance costs with fewer soap refills, the elimination of paper towels, less wet floor cleanup and less time emptying waste bins.

www.bradleycorp.com // Circle No. 59



Oxford Lanes opened at its current location in January 1963. The 12-lane bowling alley serves the Oxford, Ohio, community and hosts several coaching programs and a variety of bowling leagues.

Wanting to provide the best possible bowling facility, Owner Andrew Nieman needed to solve a problem for his patrons: wet restroom floors. "Wet floors are a major annoyance because when the soles of bowling shoes get wet, they don't function properly on the bowling lane—not to mention the safety hazards of slipping and falling on wet restroom floors. We set out to find a hand-washing product that kept water contained inside the sink with no splashing or dripping. We also wanted a fixture that was easy to install and didn't require a special drain apparatus."

The Verge with WashBar solved Nieman's concerns because it keeps the floor clear of water, crumpled paper towels and other debris. The sink also is easy to clean. "We are trying to 'go green' in our operations, so eliminating paper towels with the touch-free hand dryer was another plus," Nieman says. "The performance of the Verge with WashBar has amazed me—and our clientele."





EXQUISITE PERFORMANCE.
BROUGHT TO LIFE.



CLEAN. RINSE. DRY.



ALL-IN-ONE WASHBAR.



Bradley provides an unmatched range of commercial washroom products and solutions, like the award-winning WashBar,[®] available in custom basin options. With advanced design and cutting-edge performance, take your vision to the next level. **Commercial washrooms brought to life.**



HANDWASHING & DRYING | ACCESSORIES | PARTITIONS | LOCKERS

BRADLEYCORP.COM/WASHBAR

Circle No. 60



41 GIVE YOUR ROOF NEW LIFE

Now available through Duro-Last, Duro-Shield Coatings and Materials are designed to seal and protect a variety of substrates. Available in Duro-Shield 20, Duro-Shield 10 and Duro-Shield 5, these 100 percent elastomeric acrylic coatings feature a white finish that reflects the sun's rays, lowering heat buildup and energy costs. Duro-Shield 20 offers 35 mils of coverage when dry and a 20-year limited warranty. Duro-Shield 10 features 24 mils of coverage when dry and a 10-year limited warranty. Duro-Shield 5 offers 20 mils of coverage when dry and a five-year limited warranty. Additional products in the Duro-Shield line include Duro-Shield Primer, Duro-Shield Brush Grade Mastic and Polyester Reinforcement Fabric.

www.duro-last.com/duroshield // Circle No. 61



43 COATING CREATES WEATHERED METAL APPEARANCE

Fabral has added the Weathered Metal Series to its Specialty Coatings. Users have a choice of two stages of aged steel—moderately weathered Raw and more heavily weathered Robust. Each pattern is crafted and engineered to give any roofing or cladding project the authentic look of timelessness. The Weathered Metal Series is a fluoropolymer coating system that uses cool pigment technology applied over GALVALUME-coated steel sheets.

fabral.com // Circle No. 63



42 DIRECT-WIRE RETROFIT SOLUTION SAVES MORE ENERGY PER LAMP

Earthtronics now offers a high-performance T8 double-end direct-wire LED Type B, 15-watt EarthBulb that provides greater than 60 percent energy savings. By removing the ballast from the equation, direct-wire T8 lamps save up to 5 additional watts of energy per lamp.

When replacing 32-watt fluorescent T8 lamps, this new direct-wire solution saves 18 to 22 watts per lamp, resulting in 60 to 70 percent savings, depending on the type of ballast removed from the circuit. The double-end design provides a quick, UL-listed way to retrofit existing fixtures inexpensively.

www.earthtronics.com // Circle No. 62

Located near the Arizona State University campus in Tempe, Ariz., Green Leaf Tempe Station is home to college students and professionals. The 16-building, 400-unit apartment complex features spacious floor plans, a resort-style pool and spa, cabana-influenced grilling areas and more on approximately 18.5 acres.

David Burrill, corporate construction manager for Green Leaf Partners, says: "At all of our properties, Green Leaf Partners makes substantial improvements with goals of sustainable building, reduced waste and energy efficiency. Many times, the biggest impact and best benefit we could afford our residents and investors is in energy savings. The easiest and least expensive way to save energy is through the use of high-efficiency LED lighting."

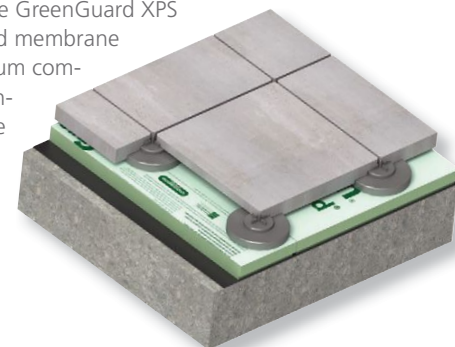
For interior spaces, Energy Efficiency Pros specified G25, A15, A19, A21, BR20 and B11 LED EarthBulbs from Earthtronics. After LEDs were installed, Green Leaf Partners was very pleased with the energy reduction and the quality of light, which provides comfort to residents and meets the property's environmentally friendly mission. Overall, Green Leaf Tempe Station will reduce its lighting energy consumption by more than 400,000 kilowatt hours each year.



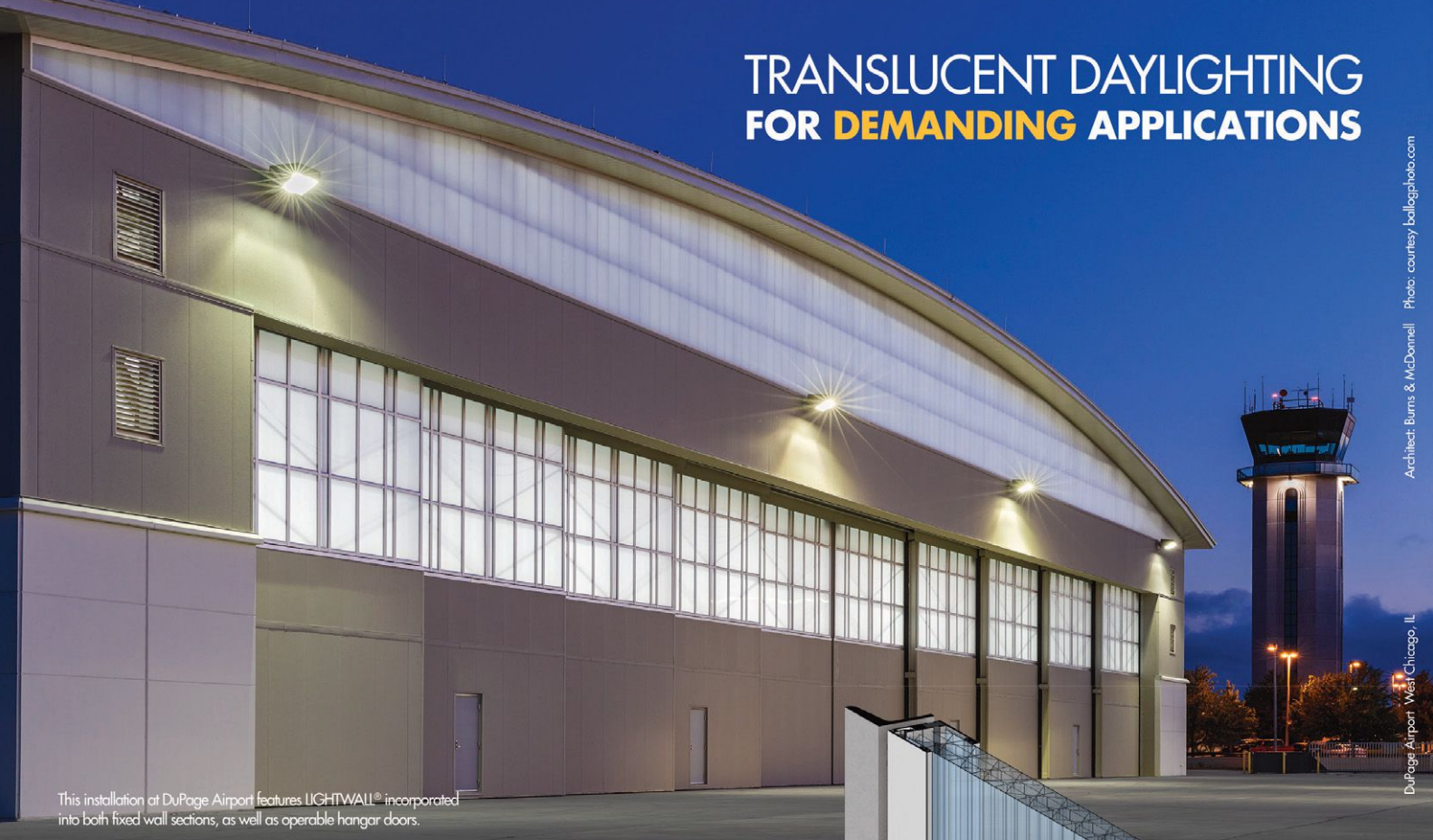
44 XPS NOW OFFERED IN ADDITIONAL THICKNESSES AND COMPRESSIVE STRENGTHS

Kingspan Insulation has expanded its GreenGuard extruded polystyrene (XPS) insulation board product offering with additional thicknesses of 3 and 4 inches in select 25-, 40- and 60-psi compressive strength boards. The company also has added a new four-sided routed drainage channel board. The products help round out Kingspan's GreenGuard line in commercial markets, such as roofing, cold storage, and various below-grade and vertical wall applications. The GreenGuard XPS Drainage Channel Board is for use in protected membrane roof assemblies requiring 40- or 60-psi minimum compressive strength and drainage channels. Drainage channels are cut along all four sides of the board at 0.5-inch deep and 0.25-inch wide. When placed facing down in a PMR assembly, channels permit drainage of water that seeps through to the roof membrane.

www.kingspaninsulation.us // Circle No. 64



TRANSLUCENT DAYLIGHTING FOR **DEMANDING** APPLICATIONS

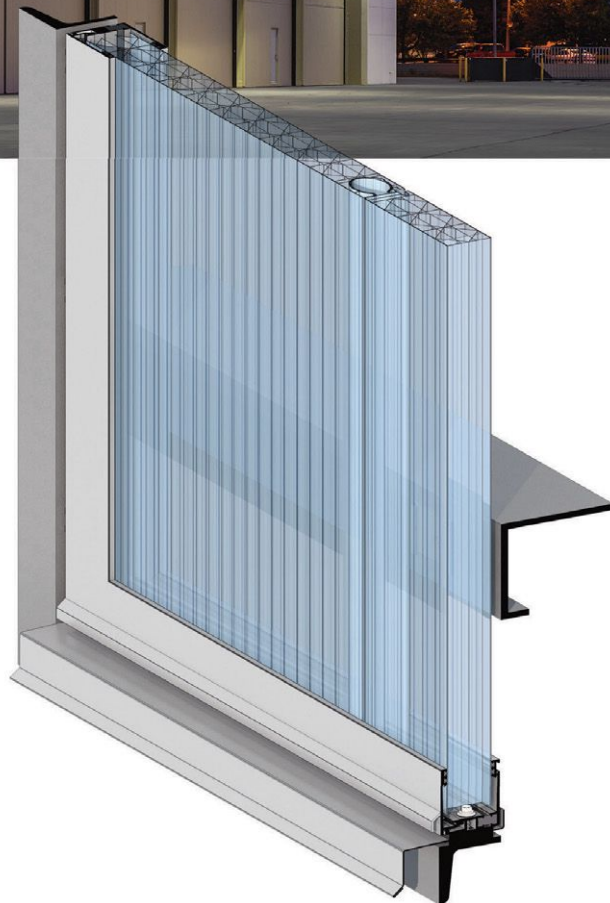


This installation at DuPage Airport features LIGHTWALL® incorporated into both fixed wall sections, as well as operable hangar doors.

LIGHTWALL®

TRANSLUCENT POLYCARBONATE WALL SYSTEMS

EXTECH designs and manufactures a variety of translucent window and wall systems that combine beauty, durability and economy. The LIGHTWALL® (Series 3440) patented interlocking system uses insulative, impact resistant cellular polycarbonate panels. The interlocking panels allow for unbroken linear runs to create daylighting façades that reduce energy costs. Panels are available as high as 54 feet to avoid leak-prone horizontal joints, and are customizable to meet your design needs. Visit www.extechinc.com to learn how LIGHTWALL® can affordably bring comfortable diffuse daylighting to your project.



WWW.EXTECHINC.COM
888.986.7824



EXTECH
EXTERIOR TECHNOLOGIES, INC.



45 FIRE-WALL HANGERS TESTED TO ASTM E814

The DG fire wall hanger series from Simpson Strong-Tie is suited for Type III multifamily, multi-level building construction and easily installs on a two-hour wood stud fire wall during framing—before the drywall is in place. The series includes three models of top-flange hangers that connect floor joists to the wood wall and feature enough space for two layers of 5/8-inch drywall to be installed later. The three fire wall hangers have been tested according to ASTM E814 standards to verify that the hangers do not reduce the two-hour assembly rating and, therefore, each of the DG hangers received F (flame) and T (temperature) ratings for use on either or both sides of a wall. The DG series hangers are certified in Intertek's online Directory of Building Products. strongtie.com // Circle No. 66



46 OPEN SPACES WITH FOLDING WALLS

Construction Specialties has introduced Vista Air Vertically Folding Walls, a flexible space solution that permits open spaces while occupying a small footprint. The system's low-profile design features Vista Air's proprietary Rizon Lift System, which utilizes meshing gears

to replace the counterweights, tension springs, straps, hydraulics and pulleys traditionally found in flexible space-management solutions. Safety and integrity are ensured by the product's durable structure, a "fail-safe" positive stop system and optional sensors to prevent hazardous closure. Vista Air is available in several mounting options and cladding materials, including metal, wood and glass. Possible attachment systems include insulated wall panels, concrete masonry units and wood framing.

vistaairwalls.com // Circle No. 67



47 FILTER EXISTING WATER FOUNTAINS, COOLERS AND MORE

Elkay offers vandal-resistant retrofit filtration kits, which add a filtration system to existing non-filtered water coolers, fountains and bottle-filling stations. The kits can be applied to Elkay or non-Elkay units, and the enclosure box is constructed from 20-gauge stainless steel to protect the filter and

discourage tampering. Kits can be mounted virtually

anywhere near an accessible water line and include the company's WaterSentry VII filter, a 1,500-gallon-capacity filter that is NSF 53 and 42 certified for the reduction of lead, chlorine, taste, odor and Class 1 particulates. The kits are available with or without an LED filter-status monitor and audio alert that indicates when a replacement filter is necessary.

elkay.com/drinking-solutions // Circle No. 68

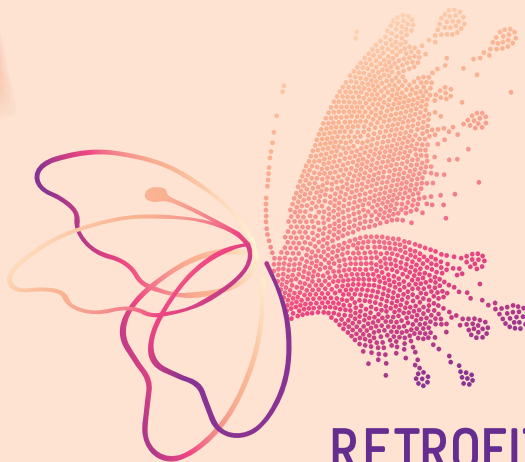
48 EXIT DEVICES MEET MULTIPLE DOOR REQUIREMENTS

ASSA ABLOY Group brand Adams Rite has made available EX Series Exit Devices in four models. The series includes impact bumpers to reduce sound and horizontal and vertical guide with return control for smoother operation. The devices come with a universal hardware kit for aluminum, hollow metal and wood installations. The EX88 Interlocking Rim Exit Device has a bolt design that interlocks the door to the frame for strength and durability; it is compatible with the new Adams Rite 7800 Electric Strike for an electrification option. The Pullman Rim Exit Device features a 3/4-inch Pullman latch bolt that is compatible with the Adams Rite 74R1 Electric Strike. The EX76 Concealed Vertical Rod Exit Device features adjustable concealed rods and latching assembly for easy installation, maintenance and adjustment. The EX80 Dummy Push Bar is for applications that do not require a latching/locking life-safety exit device. The EX Series devices come in 30-, 36- and 48-inch lengths and can be cut to length in the field.

adamsrite.com/exits // Circle No. 69



INTRODUCING
retrofit's
AWARDS PROGRAM



RETROFIT MAGAZINE METAMORPHOSIS AWARDS

The 2019 Metamorphosis Awards

Be recognized by **retrofit** magazine for your outstanding work retrofitting commercial, industrial and institutional buildings!

Submissions now are being accepted to enter our inaugural Metamorphosis Awards, honoring architects, designers and contractors for excellence in renovation, retrofits and more.

CATEGORIES:

- Whole Building
- Historic
- Exterior
- Interior
- Component
- Mixed Use
- Multifamily
- Transformation/Adaptive
- Reuse
- Addition

DEADLINE FOR ENTRIES: July 19

Learn more at www.retrofitmagazine.com/metamorphosis-awards.



49 LIGHTING SERIES INSPIRED BY DESTROYED BUILDINGS

Boom, an exclusive lighting series from Stickbulb and designed by RUX, is made from and inspired by destroyed buildings. The series features cast-brass joints and linear wooden bulbs to create forms that resemble exploding light. The design team came up with designs with minimal parts that can be manufactured within a 5-mile radius of their Long Island City studio. The Double Boom, for example, can be made from water tower redwood. Other pieces include the Little Boom, Middle Boom and Big Boom.

www.stickbulb.com // Circle No. 71

50 BASEBOARD COVERS ARE EXTRUDED ALUMINUM

Slant/Fin has introduced Revital/Line, a line of replacement baseboard covers that fits over 90 percent of all brands of standard residential baseboard. Revital/Line is an easy way to upgrade worn or damaged baseboard, in most cases, without tools. Revital/Line Replacement Covers slip over the existing hydronic baseboard back panel. To install, pop off the old, worn covers and damper panel and slip Revital/Line directly over the existing back panel. The covers, which are constructed from recycled aluminum with a durable enamel-like powder-coated finish, are designed to allow for up to 40 percent higher heat output.

www.slantfin.com // Circle No. 72



Circle No. 73



Industrial Retrofit Solutions That Improve Your IAQ

You've known us for our high quality heating and ventilation products. Now, we can keep your hard-working team cool with our new line of ESC-Series and E-Series direct, indirect, and two-stage evaporative cooling products.

To schedule a meeting, simply go to:
www.cambridge-eng.com
and click on this icon:



Superior Heating, Ventilating, and Cooling Solutions for Industrial Retrofit.



S-Series HTHV Heaters • M-Series Make-Up Air Units • ESC-Series Evaporative Cooling



This will shatter a window.



**This will shatter every preconceived notion
about brick the world has ever had.**

NewBrick delivers the classic beauty of traditional clay brick, with enormous advantages in weight, ease of use, environmental impact, system cost, and energy efficiency.

To learn more about why NewBrick is the choice of forward-thinking architects, builders, contractors, developers, and homeowners, visit newbrick.com or call 1-833-NEWBRIK.

NEWBRICK®



RETROFIT TEAM

ARCHITECT: Elkus Manfredi Architects, Boston, www.elkus-manfredi.com

- SAM NOROD, AIA, LEED AP, principal
- ELIZABETH LOWREY, IIDA, RDI, principal, director of Interior Architecture
- ROSS CAMERON, RIBA, RIAS, vice president, project manager
- ROSS CROMERTY, LEED AP, architectural designer
- BRYAN PREMONT, architect
- CHI-THIEN NGUYEN, designer
- MARGARET BROWN, designer
- MOEKO HARA, designer

EXECUTIVE ARCHITECT: Perfido Weiskopf Wagstaff + Goettel, Pittsburgh, pwwgarch.com

GENERAL CONTRACTOR: Mascaro Construction Co. L.P., Pittsburgh, www.mascaroconstruction.com

EXTERIOR RESTORATION

ARCHITECT: Wessling Architects, Quincy, Mass., www.wesslingarchitects.com

STRUCTURAL ENGINEER: Atlantic Engineering Services, Pittsburgh, aespj.com

MECHANICAL/ELECTRICAL/PLUMBING ENGINEER: AHA Consulting Engineers, Lexington, Mass., www.aha-engineers.com

ELEVATOR CONSULTANT: Van Deusen & Associates, Voorhees, N.J., vdassoc.com

PRESERVATION CONSULTANT: Heritage Consulting Group, Philadelphia, www.heritage-consulting.com

HISTORIC PRESERVATION SERVICES: Powers & Co., Philadelphia, powerspreservation.com

ART CONSULTANT: Boston Art, Boston, www.bostonartinc.com

➤ This REIMAGINED BUILDING is now a vibrant destination that attracts retail and restaurant tenants and offers flexible, modern office space with amenities that make it among the most desirable downtown workplace locations.

TREASURE TROVE

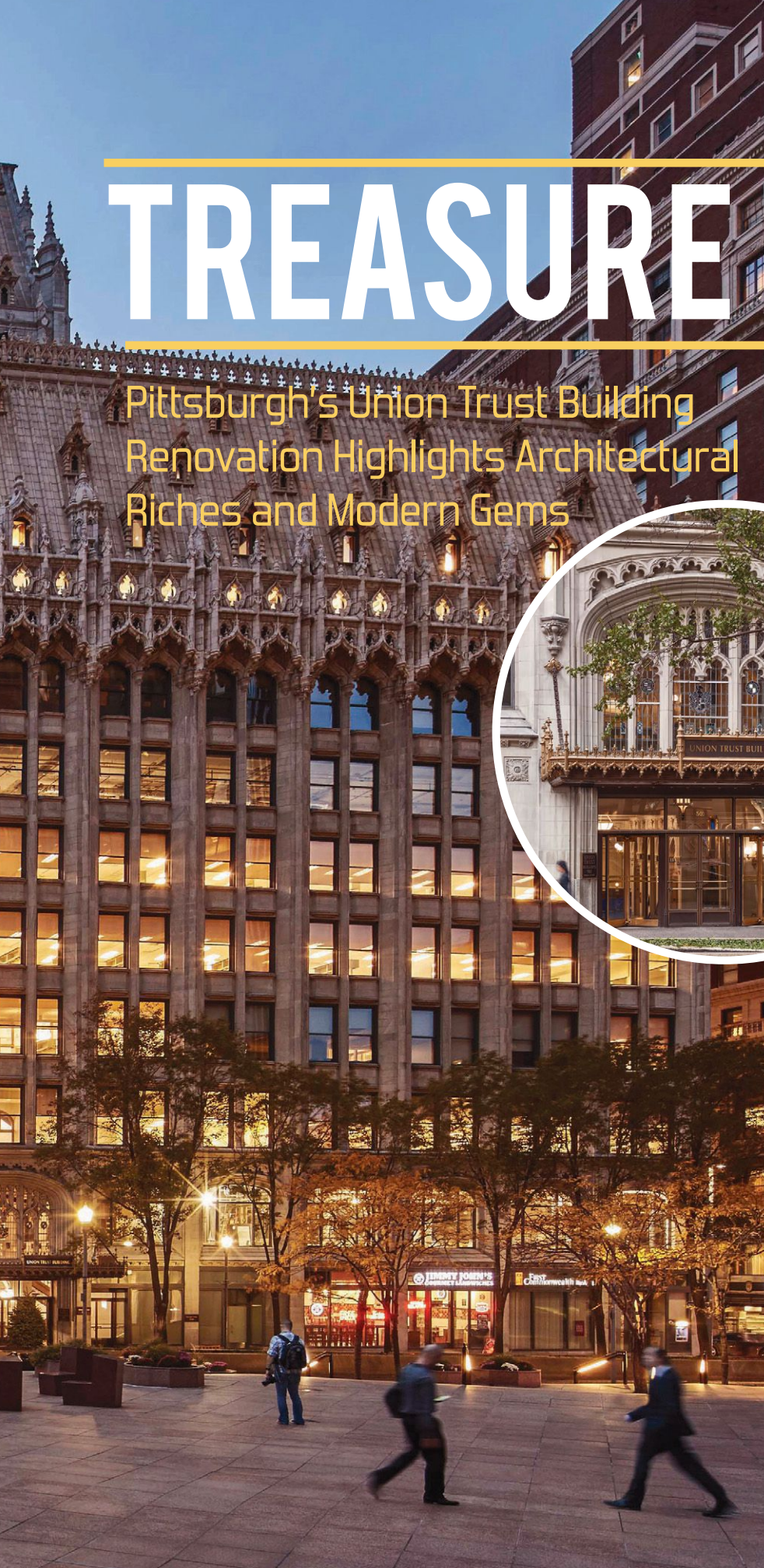
Pittsburgh's Union Trust Building Renovation Highlights Architectural Riches and Modern Gems

Ornate and impressive, the 1917 Flemish-Gothic Union Trust Building in Pittsburgh's downtown had become little more than a passageway over the decades. Ill-suited interventions and years of disrepair obscured beautifully detailed interiors in the 541,000-square-foot, 11-story icon. "Inside, it was a dingy and depressing place. People used the atrium as a shortcut from the nearby public transportation to access downtown offices, but no one lingered," recalls Ross Cameron, a vice president and architect at Elkus Manfredi Architects, the firm that was instrumental in the building's retrofit. "Now the ground-floor is activated with restaurants, and the atrium lobby is a place where people want to be and be seen. We created a contemporary use for a building that had essentially lost its way."

GRAND ARRIVAL

Arranged around a central rotunda, the interior is capped by a stained-glass dome designed by Pittsburgh's Ruby Brothers. The dome had been roofed over decades prior so it no longer functioned as a naturally daylight skylight. Although it

↖ The National Park Service oversaw the restoration of the Union Trust Building, which is listed on the National Register of Historic Places. At the four EXTERIOR ENTRIES, the addition of glass canopies was allowed, which, while modern, are respectful additions to the restored original bronze materials and give more presence to each entry.



MATERIALS

LOBBY CARPET:

Royal Thai,
www.royalthai.com

CARPET TILE:

Shaw Contract,
www.shawcontract.com

TILE:

Daltile,
www.daltile.com

STONE:

Stone Source,
www.stonesource.com

SOLID SURFACE:

Caesarstone,
www.caesarstoneus.com

PLUMBING FIXTURES:

Brizo, www.brizo.com,
and Kohler, www.us.kohler.com

FURNITURE:

Bernhardt Design,
bernhardtdesign.com;
Cumberland, www.cumberlandfurniture.com;
Debra Folz,
www.debrafolz.com;
Hightower,
hightoweraccess.com;
and Muuto, muuto.com

WALLCOVERINGS:

Carnegie Fabrics,
carnegiefabrics.com,
and D.L. Couch,
www.dlcouch.com

CASE ROOM TIERED SEATING DESKS:

Navetta,
navettadesign.com

PAINT:

Benjamin Moore, www.benjaminmoore.com

LAMINATE:

Chemetal, www.chemetal.com,
and Abet Laminati,
us.abetlaminati.com

LVT FLOORING:

Mohawk Group, www.mohawkgroup.com

RUBBER FLOORING:

Johnsonite,
www.johnsonite.com

➤ The ground floor is split into quadrants by cross-axes emanating from a central rotunda that features a grand 10-STORY ATRIUM. A total of 19,060 square feet of luxurious hand-tufted New Zealand wool carpeting was used throughout the building.

PHOTOS: © ANDREW BORDWIN, WWW.BORDWIN.COM

had been backlit from above with artificial lighting, the treatment did not properly showcase the glass's intricate detail. Designers uncovered the dome to cascade daylight down through the 11-story atrium. A new more efficient, brighter lighting system greatly enhanced the color and detail in the stained-glass work. The team also opened up floorplates and ceilings to create unobstructed expanses, which allow diverse floor plans for today's office culture.

"We left our assumptions behind and strived for authenticity in the project," notes Elizabeth Lowrey, a principal and designer at Elkus Manfredi Architects. "This meant we had to preserve the values of the Union Trust Building while breathing life into it to support modern uses."

The project contains 19,060 square feet of richly hued, hand-tufted New Zealand wool carpet manufactured in Thailand. The carpet's pattern is an exact replica in scale and design of the glass dome soaring directly above. "It's a bold blue that entices you as soon as you enter the building," says Chi-Thien Nguyen, a designer at Elkus Manfredi Architects, "and the pattern inspires people to stop, ponder and look up."

The carpet changes color as one moves up through the building, with gradients of blue ultimately shifting into a gold/amber drawn from the Union Trust's gold logo on the top floor.

OPEN INVITATION

To make the rotunda a place where people would want to spend time, the designers introduced sophisticated, inviting seating for office tenants and restaurant patrons to gather. They also added a 2,100-square-foot space for a proposed lobby bar/restaurant designed to serve morning breakfast/coffee, a grab-and-go lunch, or happy hour cocktails.

Beautiful original materials like marble and terra cotta were restored to exhibit the building's rich history. "We treated the interior almost like a museum but inserted bold colors and objects that stand out," Nguyen notes. "The deliberately modern interventions, such as the furniture and finishes, announce that a new century has arrived."

A real-estate investment fund managed by The Davis Companies of Boston owns the Union Trust Building. From the project's

inception, the company's CEO Jonathan Davis (a Pittsburgh native and arts advocate) wanted to showcase local, contemporary artists. Thirty pieces of original art—paintings, photography and ceramic wall sculpture—were commissioned for the building. For example, 10 dramatic murals line walls on both sides of the elevator lobbies on floors five through 10, as well as walls in the atrium. Bringing all these creative works to the public, the building is on a path for self-guided art walks in Pittsburgh's cultural district.

ABUNDANCE OF RICHES

The Union Trust Building was full of surprises. It's rare to find intact documentation in historic structures, but an archive of authentic building blue-print drawings had been stored in some upper floors' offices. These beautifully hand-drafted blueprints gave rise to the deep blue color of the atrium carpet.

Squirreled away in several storage rooms in the basement, architects also discovered original molds for the building's terra-cotta roof tiles.

Despite finding original blueprints, the existing building's drawings were woefully inadequate. In fact, the Union Trust Building's existing drawings were missing three entire floors. With much of the building vacant, the team was able to conduct investigative demolition. This led to another exciting surprise. Hidden in the walls of the former mechanical



↕↑ The rotunda is topped by a spectacular TIFFANY GLASS DOME, measuring 40 feet in diameter.

→ The CARPET changes color as it moves up in the atrium, graduating from blue on the ground floor to green to gold/amber on the top floor. Corridor FLOORS throughout are composed of Tennessee marble.

floor space on the upper floors, the team discovered giant structural-steel transfer trusses. “When we peeled off some walls, we found beautifully constructed steel that aligned with today’s design aesthetic so we decided to expose it,” Cameron says. “In addition, showcasing the trusses celebrates Pittsburgh’s industrial legacy.”

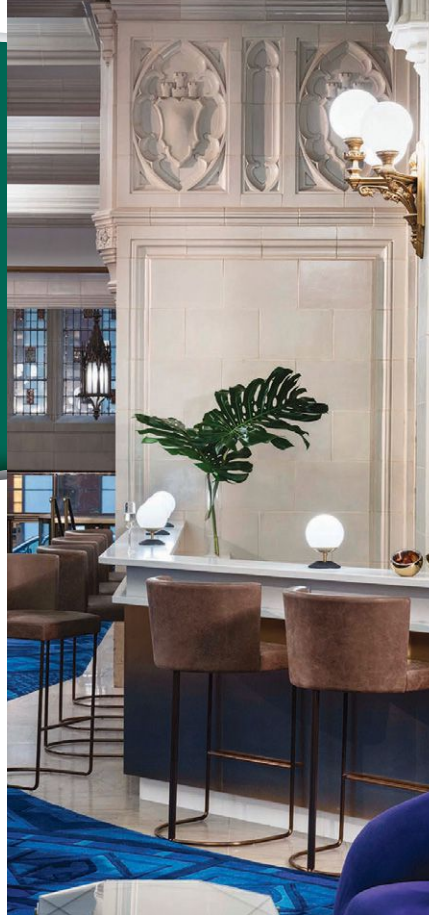
Designers programmed the area as the building’s new fitness center, and the historic trusses now give a very contemporary feel to the space.

PEELING BACK LAYERS

The team had to address the building’s severe deterioration to support the required structural, electrical and mechanical infrastructure improvements.

The building’s exterior is constructed of limestone that had rust staining over the majority of the exterior surface because of its high iron content. The mansard roof was water-damaged and leaking badly. The Union Trust Building is listed on the National Register of Historic Places and

↘ The new lobby bar is designed to be used during the day for breakfast, coffee and lunch, as well as after hours as a dinner-and-drinks nightspot.



the project was seeking state historic tax credits. This opened up a process of review at state and federal levels when it came to exterior repairs and new storefront windows for the restaurants. “This building is completely unique, and our

exterior restoration processes and cleaning methodologies faced a lot of scrutiny from reviewers,” Cameron says.

Ultimately, the iron streaks were cleaned, and the team repointed and sealed the stone. Ornamental features on the mansard roof were extensively repaired and restored, including replacement of some terra-cotta roof tiles using the discovered molds. The team also added new roofing and flashing and fully restored the bronze street entries.

Inside, a 1950s remodel had replaced glass components at the interior office entrances with marble panels that had wood and plaster surfaces above, which cut off tenant space views to and from the rotunda. Elkus Manfredi Architects replaced the 1950 panels with floor-to-ceiling linear and curved glass panels at each office front and added new LED lighting. These upgrades re-establish visual connections between the rotunda and tenant spaces and add more light to the 11-story atrium.

The team cleaned the building’s original Alabama marble and Tennessee marble floors, as well as the terra-cotta walls and floors. Bronze elevator doors on the ground floor were restored to their original glory, and 12 elevators were modernized. The renovation replaced all the building’s

↘ Comfortable, inviting seating in the rotunda allows office tenants to greet and/or meet with visitors in a grand arrival space for their workplace. The rotunda lobby can be rented as a venue for parties and events.



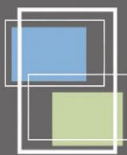
PHOTOS: © ANDREW BORDWIN, WWW.BORDWIN.COM



➤ A CONCIERGE DESK was added to the rotunda lobby. ART that was especially commissioned for the building is placed from the ground floor to the top. All pieces, many by Pittsburgh-based artists, depict Pittsburgh and the building as their subjects.

← A 2-story BRONZE grille gate—added when a bank occupied the southern half of the ground floor—is now permanently open and a special feature of the lobby.

↙ At the center of the rotunda, the CARPET pattern is inspired by the pattern on the Tiffany dome directly above.



st. cloud
window

Quiet. Safe. Timeless.



Custom Aluminum Windows & Doors

for commercial buildings
of distinction,
where aesthetics and
advanced performance are
critical considerations.

stcloudwindow.com
800.383.9311

Circle No. 75



➤ The new **MARKETING CENTER** can be used by tenants as a meeting space, independent workspace, and an educational forum for historic and new information about the building.



← The **FITNESS CENTER** on the ninth floor includes open fitness and strength training, a yoga studio and locker rooms. Designed in a space previously dedicated to HVAC infrastructure, the center features original structural trusses in a nod to the Steel City.

PHOTOS: © ANDREW BORDWIN, WWW.BORDWIN.COM

windows. The design also added a 190-car garage in the basement and a cooling tower on the roof.


CUSTOM CUT

Previously, the adjacent BNY Mellon Center had provided the building's chilled water for heating and cooling. The new cooling tower gave the building independent operations but incorporating HVAC vents into the arcade/atrium became an obstacle. "We came up with the concept to recreate molding details in metal to accommodate the vents," Nguyen says. "It's clear that these details are new in the building but they align with the original architecture."

The lush carpet also required innovation. If it had been inset, it would have involved scoring the marble floors to accept adhesive, which was not in line with

historic guidelines. The thick, wool carpet lays on top of the marble, but because it is in a high-traffic zone, it had to meet ADA compliance. "We shaved the edges of the carpet to slope down so wheelchairs can roll onto it easily and it is sculpted along the promenades to create a small porch area in front of each retail space," Nguyen explains. "It provides beauty and function for the 21st century."

Now, the award-winning Union Trust Building gleams with new retail tenants; four restaurants; and flexible, Class A office space surrounded by local art.

"The building is part of Pittsburgh's larger downtown renaissance story," Lowrey says. "And we programmed the space to serve today's tenants; invite the neighborhood in; and connect people with ideas, culture and each other." 

RETROFIT AWAY.

We want to make a confession.
We like **EASY.**



Circle No. 76



**140K+ HOUR LUMEN
MAINTENANCE**
CALCULATED AT L70



Universal's SOLUTIONS put you in CONTROL.

Learn more at <https://unvlt.com/products/led-retrofit-kits-luminaires/> or call 615.316.5322

For a list of DesignLights Consortium® QPL listed products please visit www.designlights.org/qpl/en/saved/UBU24XJ

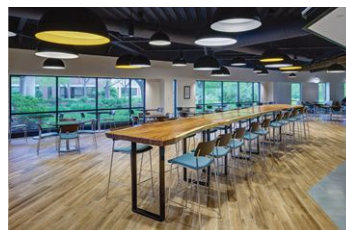
| OFFICES

506 CARNEGIE CENTER | Princeton, N.J.



BEFORE

COURTESY JZA+D



PHOTOS: MICHAEL SLACK, COURTESY JZA+D,
unless otherwise noted



» RETROFIT TEAM

ARCHITECTURE AND INTERIOR DESIGN:
JZA+D, Princeton, joshuazinder.com
GENERAL CONTRACTOR: Sweetwater
Construction Corp., Cranbury, N.J.,
sweetwatercorp.com
FOODSERVICE DESIGN CONSULTANT:
Jacobs Doland Beer, New York,
www.jdb.nyc
MEP ENGINEER: Becht Engineering BT Inc.,
Basking Ridge, N.J., www.bechtbt.com

» MATERIALS

The following materials were used
in the project:

CONCRETE PLANT WALL: Opiary LLC,
opiary.com
LOUNGE CHAIRS AND SOFAS:
Lowenstein Cubic from OFS, ofs.com
OCCASIONAL TABLE: Carolina Basket
from OFS
CHAIRS AND STOOL: Sandler Seating,
www.sandlerseating.com
DINING BOOTH: Malibu from ERG,
www.erginternational.com
TRISCAPE COFFEE TABLES: WilsonArt
Colombian Walnut7943K-07 from HBF,
www.hbf.com
CAFÉ TABLES: Falcon,
www.falconproducts.com
LIVE-EDGE TABLES: Grove Table from
DARRAN Furniture, www.darran.com
SIDE TABLES: Cahoots from Keilhauer,
www.keilhauer.com
PAINT: Benjamin Moore,
www.benjaminmoore.com

» THE RETROFIT

This sustainably designed renovation of
an existing cafeteria amenity at a rental
office property is part of a major reposi-
tioning effort aimed at attracting premium
office tenants. The goal was to redefine
the dining space as a social center for
the property and a venue for gatherings
and events, indoors and outdoors.

To open the space, the design
replaced an opaque wall delineat-
ing the servery area with a length of
storefront-style partitioning; the glass
opening establishing visual connections
between the seating and service areas.
One section of the partition element
offers a full-height plant wall installation;
sculpted concrete panels evoke a freshly
raked Zen meditation garden with flora
bursting from several openings.

Overhead, floating wood beams are
exposed, echoing the overhead wood
“canopy” of the seasonal bar outside. A
mix of lighting fixtures illuminate seating
areas: Globe pendants highlight booths
by the picture windows; domed fixtures
create intimacy and warmth around
the lounge seating; and focused LEDs
nestled between beams throughout the
space eliminate shadows and illuminate

STRUCTURAL ENGINEER: Harrison-
Hamnett P.C. Consulting Structural
Engineers, Pennington, N.J.,
www.hhpccse.com
LIGHTING DESIGN: OneLux Studio,
New York, oneluxstudio.com
LANDSCAPE ARCHITECTURE: Langan,
Parsippany, N.J., www.langan.com
COST-ESTIMATING CONSULTANT:
International Consultants Inc.,
Philadelphia, icconst.com

WALLCOVERING: MDC,
www.mdcwall.com
CARPET: Mannington,
www.mannington.com, and Atlas,
www.atlascarpetmills.com
CEILING: Woodworks Vector from
Armstrong Ceiling & Wall Solutions,
www.armstrongceilings.com
STONE COUNTERTOPS: Cambria,
www.cambriausa.com
TILE: Daltile, www.daltile.com; Nasco
Stone & Tile, nascostonetile.com; and
Concrete Collaborative, concrete-
collaborative.com
VCT FLOORING: Armstrong Flooring,
www.armstrongflooring.com
PLASTIC LAMINATE: Formica,
www.formica.com
LIGHTING: Philips, www.lighting.philips.com, and Amerlux,
www.amerlux.com
SLIDING GLASS DOOR AND WALL
ENCLOSURE SEPARATING SERVERY
FROM CAFÉ: CRL-U.S. Aluminum,
www.crl-arch.com

tables near the partitions and foot-traffic
lanes.

Varied furnishings are arranged to
provide options for occupants to enjoy
the space as they prefer. The bar ele-
ment is accented with Edison-style LED
pendant lights and several large artwork
panels featuring urban skyscrapers.

The cafeteria servery enjoys a
chic, industrial vibe thanks to a steel-
edge soffit ceiling and counter—with
recessed linear and spotlight LEDs
arranged overhead in complementary
forms—and glossy blue tiles in stag-
gered-brick patterns on the back wall.
Wood flooring extends into the service
lane, giving way to tiles by the counter.
At each end, sliding glass partitions
secure the servery after hours without
sacrificing the feeling of openness.

A redesigned entrance vestibule
utilizes aluminum and glass to heighten
the transparency and reinforce the con-
nection to the patio area. The barbecue
kiosk sports a trellis-like wood canopy
cover that references the floating
beams inside the café. The bar pavilion,
topped with slate roof tiles and a bronze
cap, echoes the covered walkways
between buildings at this office park.

RANCHO VISTA CORPORATE CENTER

San Diego

PHOTOS: CHIPPER HATTER



» RETROFIT TEAM

ARCHITECTURE/INTERIORS:
Ware Malcomb, San Diego,
www.waremalcomb.com

GENERAL CONTRACTOR: Level 10 Construction,
San Diego, www.level10gc.com

CIVIL ENGINEERS: Michael Baker International,
Pittsburgh, www.mbakintl.com, and SWS Civil
Engineers, San Marcos, Calif., www.sws-engr.com

STRUCTURAL ENGINEER: Coffman Engineers
(formerly Hope-Amundson), San Diego, www.coffman.com

MECHANICAL/PLUMBING ENGINEER: DEC Engi-
neers Inc., San Diego, decengineers.com

ELECTRICAL ENGINEER: Michael Wall Engineering,
San Diego, www.mwalleng.com

LANDSCAPE ARCHITECT: Ridge Landscape Archi-
tects, Irvine, Calif., www.ridgela.com

» MATERIALS

The following materials were used in the project:

PAINT: Sherwin-Williams, www.sherwin-williams.com

TILE: Daltile, www.daltile.com, and Ecocrete from
IRIS US, www.irisus.com

CARPET: Shaw Floors,
shawfloors.com, and
Tandus Centiva, www.tandus-centiva.com

RUBBER FLOORING (GYM): Ecore Athletic,
www.ecoreathletic.com

WALK-OFF MAT: Milliken, www.milliken.com

LVT FLOORING: Shaw Floors

SHEET VINYL: Mannington, www.mannington.com

FABRIC: Carnegie Fabrics, carnegiefabrics.com,
and Designtex, www.designtex.com

SOLID SURFACE: PentalQuartz, pentalquartz.com

SLIDING DOORS: Arcadia, www.arcadiainc.com

EXTERIOR STONE: TerraCORE,
www.terracorepanels.com

FAÇADE CLADDING: Longboard,
longboardfacades.com

SHADE SAILS: Moran Canvas Products,
morancanvas.com

» THE RETROFIT

Located in the Rancho Bernardo community, the
Rancho Vista Corporate Center includes Class
A office and research and development build-
ings totaling 838,300 square feet on 67.5 acres.

Originally constructed in 1970, the campus was
previously owned and fully occupied by Hewlett
Packard. When the property was sold in 2016, the
opportunity arose to transform it from a single-
tenant site into a modern multi-tenant campus.

One of the main goals of the project was
to update and add onsite amenities that would
attract and retain tenants. The renovation includes
a remodeled conference center and a courtyard
with outdoor collaboration areas and dining area
with a stretched fabric canopy. The renovated
15,600-square-foot café features operable glass
walls to provide an indoor/outdoor connection with
the courtyard. Other new amenities for tenants
include an indoor fitness center and outdoor bas-
ketball and volleyball courts.

A driving force of the project was to create a
sustainable environment for campus users, focus-
ing on energy efficiency. The landscape design
includes xeriscaping to minimize water usage while
providing plentiful shaded areas that allow users to
utilize outdoor amenities.

With an updated image and new amenities,
Rancho Vista Corporate Center offers a modern
campus atmosphere that has already attracted a
full roster of tenants.

Sustainability starts at the top.

It's often the largest surface area on a building. So shouldn't a roof also be a major contributor to its sustainability? Duro-Last® is the industry leader in certifications under NSF/ANSI 347 for product durability, reflectivity, recyclability and sustainable manufacturing. The flagship Duro-Last membrane, as well as the Rock-Ply® and Shingle-Ply® membranes, earned Platinum certification and the Duro-Fleece®, Duro-Fleece Plus®, Duro-Tuff® and Duro-Last EV membranes each earned Gold certification. Sustainability starts at the top – with what's not only the "World's Best Roof®", but North America's sustainable roofing leader.

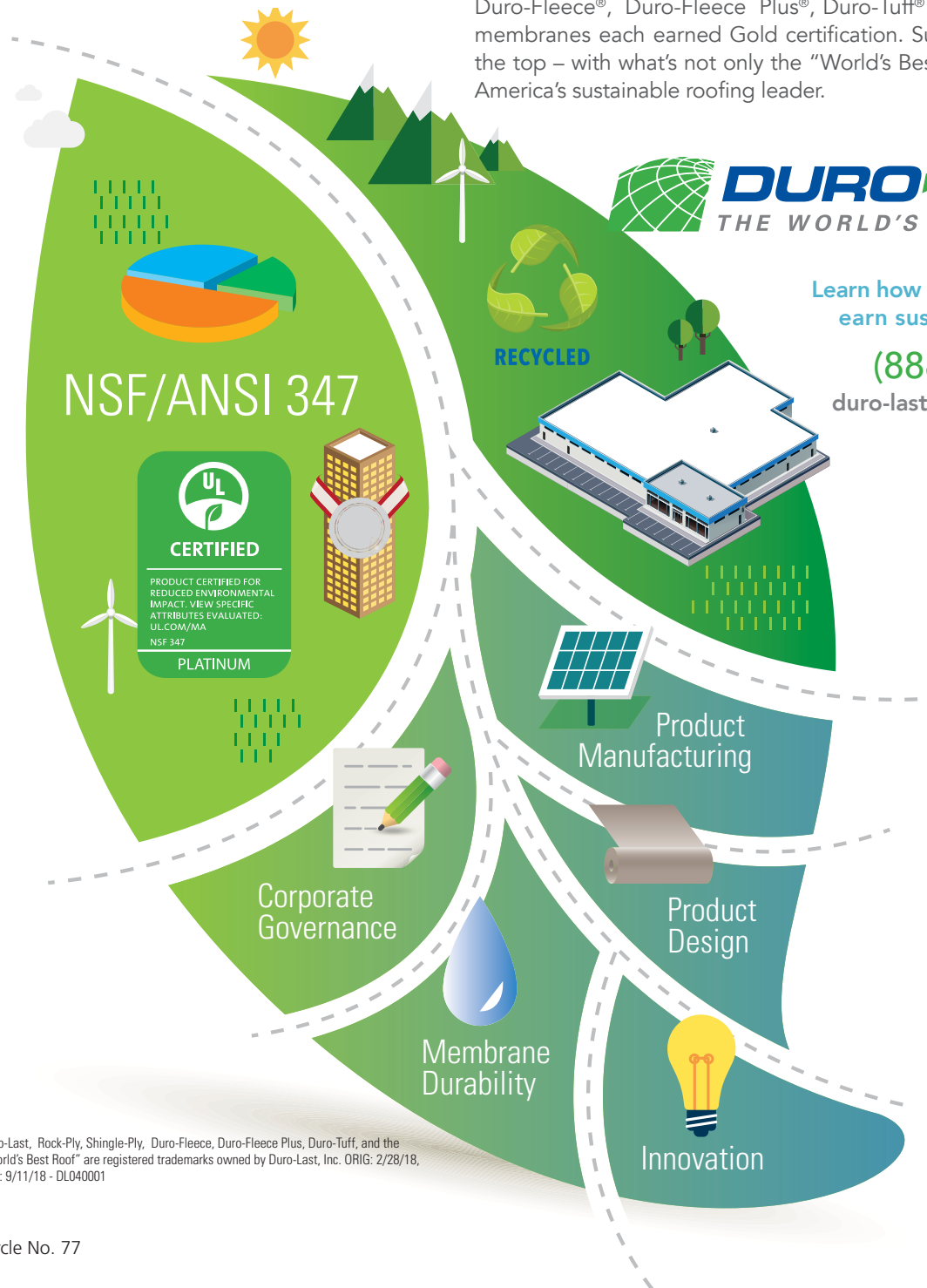


DURO-LAST®
THE WORLD'S BEST ROOF®

Learn how Duro-Last can help
earn sustainability points:

(888) 496-2849

duro-last.com/sustainability



Duro-Last, Rock-Ply, Shingle-Ply, Duro-Fleece, Duro-Fleece Plus, Duro-Tuff, and the "World's Best Roof" are registered trademarks owned by Duro-Last, Inc. ORIG: 2/28/18, REV: 9/11/18 - DL040001

SUBSTANTIAL | Seattle

► RETROFIT TEAM

ARCHITECT: goCstudio, Seattle, goCstudio.com
 ■ Jon Gentry, AIA
 ■ Aimee O'Carroll, ARB
 ■ Rebecca Fuhrman and Nick Durig, intern architects
 CONTRACTOR: Montlake Associates, Seattle, www.montlakenw.com
 LIGHTING DESIGN: KMJ Design, Seattle, kmj-design.com

► MATERIALS

The following materials were used in the project:
 CORK FLOORING: Vallarex from Expanko, www.expanko.com
 CORK WALL PANELING: Jelinek, www.jelinek.com
 SKYLIGHT: CrystaLite, crystaliteinc.com
 CUSTOM-FABRICATED STEEL/GLASS CONFERENCE ROOM WALLS AND DOORS: Marian Built, www.marianbuilt.com

SLIDING DOOR HARDWARE:

Henderson, www.pchenderson.com

DOOR LEVER: Athena from EMTEK, emtek.com

RECEPTION DESK

(BLACK WALNUT VENEER PLYWOOD, HOT-ROLLED STEEL BASE): Designed by goCstudio and Fabricated by Dolan Built, www.dolanbuilt.com

KITCHEN ISLAND AND BAR (CROSS-LAMINATED TIMBER ON HOT-ROLLED STEEL BASE): Designed by goCstudio and Fabricated by Dolan Built

CONFERENCE-ROOM STEEL DOOR HANDLES: Designed by goCstudio, Fabricated by Marian Built

KITCHEN ISLAND AND BAR LIGHTING: Lucent Lampworks, www.lucentlampworks.com

KITCHEN CHAIRS: Hot Mesh Stool from Blu Dot, www.bludot.com

► THE RETROFIT

Substantial is a digital product studio that was housed in one of two office spaces on the upper floor of a 100-year-old building. Substantial readily took the opportunity to expand into the rest of the floor when the previous tenant moved. The challenge was to create a cohesive open plan workspace, which retained the feel of the original Substantial space and would maximize the existing character of the building: exposed brick walls, old-growth Douglas fir beams and roof decking, and warehouse-style window walls.

Working closely with the owners to understand how the office operates on a day-to-day basis, as well as the needs of the ever-growing number of events and social programs that Substantial hosts, goCstudio proposed the concept of The Forum, a place of assembly for social and business activities. By creating a focal point for a 14,000-square-foot office, employees and visitors would have a place to congregate and exchange ideas in an informal space.

Architecturally, The Forum became an open space below a new large-scale skylight adjacent to the entry staircase. Not only is the skylight used as means to allow natural

light into the deep plan of the building, but it also naturally draws people into the heart of the building. This space became the programmatic organizer of the new insertions, which were laid out around it. A strong material palette of ebony-stained plywood defines the new insertions—conference rooms, quiet rooms and phone rooms—which are organized around The Forum and tie the open office together. Two existing conference rooms were retained from the previous tenant in the expansion and treated with the same material palette to tie them into the new design. The rooms have large steel and glass doors in the style of the industrial warehouses of the building's era.

By day, the large kitchen/dining area is used as transient workspaces for the employees who often enjoy a change of scene throughout the day. The 25-foot-long kitchen island and 16-foot-long bar island transform into a busy full-service event space. A 20-foot-long custom reception desk, which reuses Substantial's former steel entry door, was designed to greet visitors as they ascend the staircase from the street. Almost half the office can be used as social gathering space with ease.



PHOTOS: KEVIN SCOTT





Bloomingdale's at Beverly Center | Los Angeles, CA

CPI Daylighting is now Kingspan Light + Air. Why? Because we believe the combination of our award-winning translucent daylighting products with the pioneering technology of Kingspan, the global leader in building envelope solutions, will be a driving force for innovation and performance.

Our Removable Skin Technology (RST) was developed to create a two-panel system that delivers the ultimate flexibility and versatility. The system is designed so the individual glazing panels are independent from one another and are mechanically connected to the internal support structure. Instead of relying on adhesives, which require continual maintenance, our system utilizes a mechanical connection that allows the interior or exterior glazing panel to be disengaged or removed as necessary while the other glazing panel remains in place. This feature maintains the integrity of the building envelope, enables building operations to continue without interruption, and results in unrivaled system longevity.

Removable Skin Technology (RST)



Circle No. 78

kingspanlightandair.com | 847.816.1060
cpidaylighting.com | 800.759.6985





1ST CHOICE SAVINGS & CREDIT UNION

Lethbridge, Alberta, Canada

PHOTOS: HUBBELL LIGHTING

» RETROFIT TEAM

MANUFACTURER'S REPRESENTATIVE:
Optics Lighting, Calgary, Alberta, www.opticslighting.com



» MATERIALS

Optics Lighting evaluated a number of lighting solutions and realized LED technology would solve maintenance issues but noted performance would still be challenging because of the unique dimensions of the room and ceiling.

After a thorough evaluation, the team decided it would be beneficial to pilot KIM Lighting's ArcheType X luminaire. It has the ability to place light where it's needed most with target efficiency. In ArcheType X, LEAR modules are individually controlled to provide custom-adjustable light distributions. Each optical assembly accommodates 359-degree rotation and tilts between 0 and 70 degrees.

ARCHETYPE X MANUFACTURER: KIM Lighting by
Hubbell Lighting, www.hubbellighting.com

» THE RETROFIT

The Lethbridge location was designed to be a bright and inviting facility with an open lobby, a high ceiling and glass façades that allow sunlight into the building. Although the architect had the best intentions, the lobby's lighting became an issue because of the physical position of the building itself. Facing north, the large windows offered plenty of daylight on sunny days—and glare during prime working hours that made it difficult for staff members to do their jobs. To rectify this issue, the maintenance team applied a tint to the windows. The tinting strategy amplified

the illumination issues in the facility on overcast days. The 22 legacy 150-watt indirect/direct metal halide fixtures provided inadequate illumination for the lobby, and many people visiting the facility were compelled to comment on how dark it felt.

Additionally, the metal halide fixtures' recurrent maintenance issues were becoming cost-prohibitive and 1st Choice's facilities team would often wait to service these fixtures knowing another issue was destined to come up shortly. Lamp and ballast failures were prevalent every week or two and an upgrade to Medium Base MH lamps proved unsuccessful when the burnouts continued.

After replacing the metal halide lamps with ArcheType X, the lighting at 1st Choice is more efficient, evenly illuminated across the entire ceiling and the required footcandles are being met on the floor. In fact, the custom distributions of the ArcheType X allowed the team to reduce the number of fixtures from 22 to 14 while achieving greater uniformity and efficacy. 1st Choice now is using 57 percent less wattage: The legacy fixtures operated at 3,300 watts; the ArcheType X fixtures operate at 1,414 watts.

In addition to staff and members being pleased with the new lighting, 1st Choice is saving money on energy and maintenance costs. Facility representatives are also in the process of securing a utility rebate and expect to incur additional monetary savings once the application is approved.

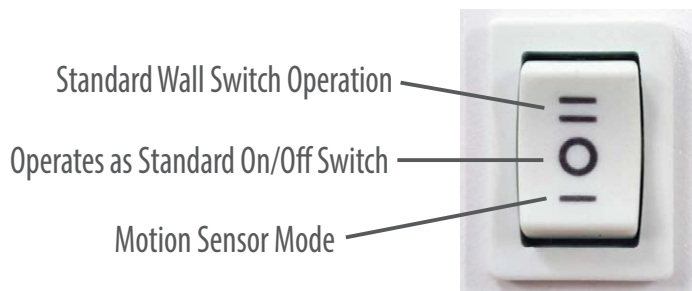
An LED Lighting Solution for Small Spaces

Small Space LED Luminaire with Motion Sensor

- ◆ For New or Retrofit Applications
- ◆ 1,000 Lumens at 13 Watts
- ◆ 4000K Cool White Light
- ◆ Easily lights a
100-Square Foot Space
- ◆ Detects Motion in a
20-Foot Range
- ◆ For Ceiling or Wall
Mount Applications
- ◆ Significant Energy
Savings
- ◆ Superior Performance
vs. CFL or LED Lamps
- ◆ Operates with Motion Sensor
or Standard Wall Switch



Operating Modes — Three (3) Switch Options



Want to Try it Out?

See why our Reliable and Sustainable Small Space LED Luminaire is right for you! To request your FREE product evaluation sample, contact Allen Guidry III at aguidry@engproducts.com!

Use Code: EPCO-SSL19

*Note: Free Evaluation Sample Offer
Expires December 31, 2018*

5-Year Warranty. Meets the requirements of the 2017 National Electrical Code. ETL Listed to UL Standards. May qualify for rebates from your local utility.

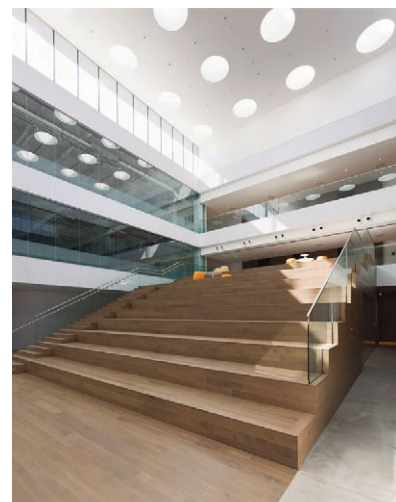


5401 Smetana Drive, Minnetonka MN 55343 • engproducts.com • 800.336.1976

© 2018 Engineered Products Company. All Rights Reserved.



PHOTOS: CRL-U.S. ALUMINUM



777 AVIATION | El Segundo, Calif.

► RETROFIT TEAM

ARCHITECT: Skidmore, Owings & Merrill (SOM), Los Angeles, www.som.com
GENERAL CONTRACTOR: W.L. Butler, Los Angeles, www.wlbutler.com
GLASS SUPPLIER: Triview Glass, City of Industry, Calif., triview-glass.squarespace.com
GLAZING INSTALLERS: Glazing Concepts, Corona, Calif., glazingconceptsinc.com, and Electrolurgy Manufacturing, Santa Ana, Calif., electrolurgymfg.com

► MATERIALS

SOM's team leveraged the benefits of glass throughout the building to optimize daylight diffusion, thermal performance and aesthetics. The first floor façade and upper level balcony feature CRL-U.S. Aluminum's Series 4500SG Structural Silicone Glazed Curtain Wall, which includes a pressure-bar-free design and is engineered without exposed exterior vertical mullions and joint fasteners. This

produces uninterrupted horizontal glass spans that provide streamlined visuals and a seamless transition to the interior.

CRL-U.S. Aluminum's Entice Entrance System also was installed. The system features ultra-narrow 1 1/8-inch vertical stiles and an overall system depth of 2 1/2 inches, producing an all-glass aesthetic. In addition, it can support handle hardware—including panic devices—on 1-inch insulating glass units using proprietary through-glass fittings.

Existing systems were grandfathered in, but the Series 4500SG Curtain Wall and Entice Entrance System were subjected to, and met, California Title 24's thermal performance requirements.

Interior glass entrances include CRL-U.S. Aluminum DRS Door Rails with floating headers and low-profile sidelite channels that produce clean glass spans. The DRS Door Rails are paired with CRL-Blumcraft Panic Handles, which feature a slim tubular design. Custom 13/16-inch laminated glass was selected to allow taller glass spans and

improve STC ratings. The glass walls feature a custom dot pattern frit while providing privacy and light diffusion.

The building's interior also features CRL's GRS TAPER-LOC Glass Guardrail System with corner top caps. The guardrail offers an ICC-ES-approved base shoe system and complies with 2015 IBC updates.

GLASS MANUFACTURER AND SUPPLIER: CRL-U.S. Aluminum, www.crl-arch.com

► THE RETROFIT

Originally occupied by Xerox Corp., Modernist Architect Craig Ellwood developed the office building's concept in 1968. To reflect the needs and culture of today's workspaces, SOM was charged with repurposing 777 Aviation from a single-tenant to a multi-tenant space with indoor and outdoor collaborative environments. A café, gym, bike-rental space and dog park were part of the updates.

AIRPORT SQUARE 13 | Linthicum Heights, Md.

►► RETROFIT TEAM

ARCHITECT: Gensler, Baltimore, www.gensler.com

METAL WALL PANEL INSTALLERS: HITT Contracting Inc., Falls Church, Va., hitt.com, and Chesapeake Glazing, Reisterstown, Md., www.chesapeakeglazing.com

►► MATERIALS

Contrasting Dri-Design Wall Panels recently transformed the 30-year-old, 4-story office building into a modern lease option with curb appeal. HITT Contracting in collaboration with Chesapeake Glazing installed 20,621 square feet of 0.080-inch aluminum Dri-Design wall panels in clear anodized and Charcoal painted finishes.

Dri-Design wall panels have dry joints. There are no sealants, gaskets or butyl tape, so there will be no streaking on the building or maintenance for building owners. The panels are tested to exceed ASTM standards and the latest AAMA 508-07. Dri-Design panels are available in a variety of materials, colors, finishes, textures and sizes.

WALL PANELS MANUFACTURER: Dri-Design, www.dri-design.com

►► THE RETROFIT

Gensler worked with the developer to make this building the signature spot of Airport Square, a 200-acre corporate campus. Surrounded by retail, restaurants and new office developments, Airport Square 13 now can compete because of its interior and exterior renovations, which have made the space more attractive.



PHOTOS: DRI-DESIGN





Power & Lighting All-In-One

Starline's revolutionary overhead Track Busway system is flexible enough to power your office equipment and your lighting. To learn more about how Starline Track Busway's open-access, reconfigurable capabilities make it ideal for open office environments, please visit StarlineBuildings.com/Retrofit.

STARLINE

Circle No. 80

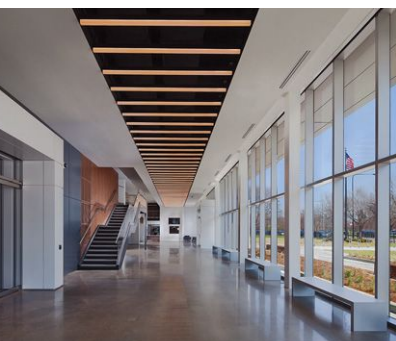


INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS (IBEW) LOCAL 134

Chicago



PHOTOS © PAUL SCHLISMAN PHOTOGRAPHY, COURTESY OF WIGHT & CO., unless otherwise noted



►► RETROFIT TEAM

ARCHITECT AND GENERAL CONTRACTOR: Wight & Co., Chicago, www.wightco.com
METAL PANEL INSTALLER: Architectural Panel Systems Inc., Naperville, Ill., www.architecturalpanelsystems.com
METAL PANEL ENGINEERING AND FABRICATION: Sobotec Ltd., Hamilton, Ontario, Canada, www.sobotec.com

►► MATERIALS

The modern façade is clad in nearly 24,000 square feet of 4-millimeter Alucobond PLUS aluminum composite material (ACM), including 19,873 square feet of Custom Ridgedale Silver, 2,327 square feet of Custom Gray Velvet Mica and 1,747 square feet of Bone White.

"The Alucobond ACM panel was selected as the 'wrapper' of the building because it gave us a clean and modern finish that would help emphasize the massing, as well as the slim profile that was crucial to the architectural concept," explains Milica "Mimi" Stojasavljevic, project designer, Wight & Co. "The module we wanted to work with was fairly large and Alucobond ACM was able to achieve this. The custom colors were so helpful; it gave us endless opportunity in color selection." The Custom Ridgedale Silver and Custom Gray

Velvet Mica Alucobond colors were selected to create a two-tone subtle backdrop to reflect the building's light feature, according to Stojasavljevic.

Alucobond panels also were installed in IBEW's headquarters' interior areas "where we were trying to mimic some of the exterior architecture," Stojasavljevic says.

"Alucobond allowed them to keep the aesthetics and come in at budget," says Ross Boehmer, president of Architectural Panel Systems. "We could install much larger panels with joints where they wanted them."

"This design required very long panels," adds Vlad Sobot, president of Sobotec Ltd., recalling the majority of the 1,085 Alucobond panels measured 5 feet by 12 feet and ranged up to 16 feet in length. "If we used any cladding material other than Alucobond, it would show a great deal of oil canning."

Sobotec's team developed engineering plans that included the installation of aluminum stiffeners behind the Alucobond panels. "To achieve this design properly, you have to introduce stiffeners on these large panels," Sobot notes. "That's no easy task because they can read through. This installation with Alucobond does not. It looks simple, but it's not."

ACM MANUFACTURER: 3A Composites USA, www.3acompositesusa.com

►► THE RETROFIT

IBEW members celebrated the grand opening of their new headquarters and union hall in May 2018. The renovation project has been described in glowing terms that are reflective not only of the building's light-filled architectural design but of its significant impact on the surrounding Bronzeville neighborhood revitalization.

The \$25-million project—totaling approximately 70,000 square feet—is a retrofit of the Chicago Public Schools' 1960s-era, 48,000-square-foot Drake Elementary School, as well as 22,000 square feet of new construction. To achieve IBEW's design goals for the old school, Stojasavljevic said the decision was made to demolish everything but the concrete structure and to rebuild the exterior skin and interiors. A 5-foot cavity between the renovated school building and the newly constructed union hall and lobby was designed to serve as a chase for oversized ductwork running to the lobby.

Demolition began in January 2017 with a tight schedule requiring renovated offices to be ready in September 2017 and the newly constructed union hall and lobby completed in March 2018.



Full Coverage

APPLIED SCIENCE

Every application has unique requirements. Dura Coat Products has 30 years of meeting special application requisites.

DURA COAT PRODUCTS, INC.

**RIVERSIDE, CALIFORNIA
(951) 341-6500**

**HUNTSVILLE, ALABAMA
(256) 350-4300**

www.duracoatproducts.com 

Specialty products require specialty coatings. Dura Coat Products has you covered.

VERSATILITY IS ONE OF METAL'S MANY ADVANTAGES. It can be used indoors and out, structurally or decoratively. Part of its versatility stems from the coating used to protect it.

How do you find the right metal coating? Ask Dura Coat Products, Inc., the company that just makes one thing — performance coatings for metal.

Roof and siding coatings require high durability and UV protection. For that we offer Durapon 70®, a premium PVDF, and Ceranamel™ XT-40S, a superior polyester. Both give long-term performance and resist chalking, fading and weathering for monumental, commercial and residential applications. Both comply with Energy Star, LEED 29 and Cool Roof standards.

Applications. Let us count the ways.

For applications that don't require premium coatings, Dura Coat has a variety of options. If your application is outdoor, for products like screen and door frames, trim, truck trailer, entry, garage door or HVAC, we have what you need. For indoor appliances, office furniture, closet hardware, T-bar or lighting, Dura Coat can cover that base too. Solutions include high, medium and low gloss finishes in polyester, acrylic, urethane and primer formulations.

Whatever your need, we have you covered. One call, one order, one responsibility. Make your life easier and your products better. Call 951-341-6500 or 256-350-4300 or visit www.duracoatproducts.com for all your metal coating needs.



Metals Service Center Institute

RADIO FLYER | Chicago

►► RETROFIT TEAM

ARCHITECT: Gensler, Chicago, www.gensler.com

GENERAL CONTRACTOR: Leopardo, Chicago, leopardo.com

LIGHTING DESIGNER: JR Lighting Design, Tinley Park, Ill., jrlightingdesign.com

ELECTRICAL CONTRACTOR: Grand Kahn Electric, Chicago, grandkahn.com

►► MATERIALS

Radio Flyer officials decided the brick façade didn't convey the company's energetic and free-spirited work environment. It was too industrial and didn't sparkle with Radio Flyer's energetic and whimsical spirit.

A 167-foot-wide by 30-foot-tall tube-steel-frame and channel-glass wall was created to provide a dynamic, colorful entrance experience into the company's welcome area. The designers added programmable, color LED lighting to backlight the glass, based on the client's vision. "Any element of the lighting system needed to be able to withstand the harsh conditions an outdoor permanent installation faces in Chicago's winter and summer months," notes Jason Reberski, JR Lighting Design's president.

As such, all lighting instruments required an ingress-protection rating of at least IP65. The fixtures also had to be capable of performing in a long-duty-cycle application while creating enough

light to adequately illuminate frosted glass during daylight hours. The system had to be self-sustaining and self-programmable so there would be little staff interaction. Because the system covers one large surface, it needed to be illuminated evenly and show no signs of color variation. JR Lighting Design selected Acclaim Lighting's Dyna Drum HO and Dyna Flood QA fixtures for the job because of their high lumen output with rich colors and high IP rating.

The fixtures feature an adjustable yoke, onboard digital display, a 100-277VAC internal power supply and a built-in receiver for Acclaim Lighting's Aria wireless DMX transceiver. The compact, local, outdoor-rated wireless DMX transceiver acts as a sending and receiving point. Users can select up to 15 channels on the 2.4GHz band. An internal, wireless radio features automatic networking and signal routing optimization to ensure the best-possible DMX data reception. The ARIA system includes a 5 dB, omni-directional antenna to provide transmission up to 2,600 feet line of sight and 300 feet between obstructions and walls. This installation represented the ARIA Wireless DMX technology's first commercial use.

To showcase the giant, iconic wagon on the property, lighting designers installed all-white Dyna Flood QA fixtures. This high-power, LED flood unit features an auto-switching, multi-voltage power supply and an onboard, touch-sensitive menu.

The entire installation also includes Acclaim's RDS, 6-way DMX + RDM splitter and optimizer. The unit features one RDM/DMX input and six outputs, providing flexible configuration of the RDM/DMX signal. Each port is isolated electrically to ensure a maximum total run of 3,900 feet for each signal line.

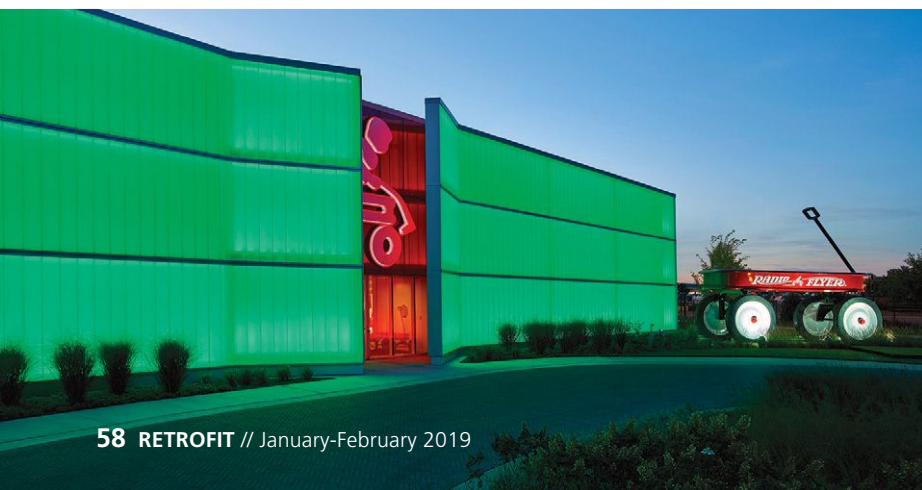
JR Lighting Design also specified the Interactive Technologies CueServer 2 DIN, an ethernet-based lighting-control solution that can blend standalone architectural and show-control functions to produce elaborate, customized playback.

LIGHTING AND CONTROLS MANUFACTURER: Acclaim Lighting, www.acclaimlighting.com

►► THE RETROFIT

At Radio Flyer, the color red and wagons are at the core of the company's 100-year-old heritage. The headquarters building, once a traditional, brick-clad manufacturing warehouse on West Grand Avenue, now welcomes visitors from across the world into the whimsical world of wagons, scooters, trikes, bikes and ride-ons with a new, shiny modern façade. The lighting project took nearly a year to complete, with revisions, systems modifications and programming completed by July 2017.

EDITOR'S NOTE: ARIA Wireless DMX was chosen by *retrofit*'s readers as one of the Top 50 Products of 2018. Learn more on page 18.

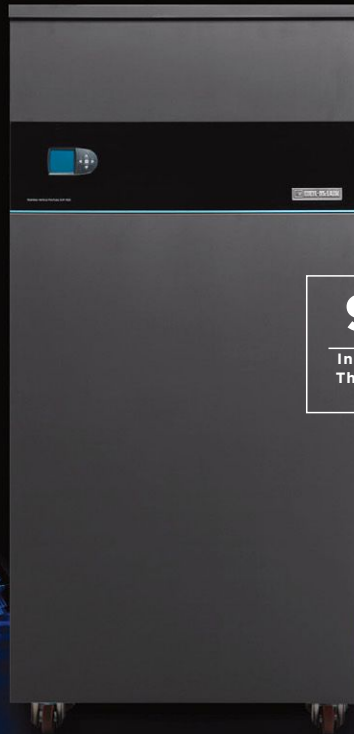




THE CONTRACTOR'S CHOICE - EST. 1881

NORTH AMERICA'S LEADING BOILER MANUFACTURER

INTRODUCING THE STAINLESS VERTICAL FIRETUBE



97.1%

Industry - Leading
Thermal Efficiency

SVF™ | STAINLESS
VERTICAL
FIRETUBE

Firetube Performance, *Perfected*



EVERGREEN®



LGB™



SLIM FIT™



88™ SERIES 2

Visit us at AHR booth #B1519

Circle No. 82

BAKER CENTER | Minneapolis

► RETROFIT TEAM

ARCHITECT: RSP Architects, Minneapolis, rsparch.com
 GENERAL CONTRACTORS: JE Dunn Construction Group Inc., Minneapolis, www.jedunn.com, and Gardner Builders, Minneapolis, gardner-builders.com
 GLAZIER: Brin Glass Co., Minneapolis, www.bringlass.com

► MATERIALS

Trex Commercial Products installed custom railings that outline the rooftop terrace, contemporary atrium staircase connecting the first and second floors, and the interior landings and overlooks.

Trex Commercial Products provided a dry glaze Track Rail system with glass infill. The glass and stainless-steel system added a modern touch to the historic renovation. A highlight of this project is the curved landing, which required rolled base shoe, cladding, top cap and glass to achieve the desired radius.

RAILING MANUFACTURER: Trex Commercial Products, www.trexcommercial.com

► THE RETROFIT

The Baker Center, a multi-tenant office property, includes four buildings located on the corner of Marquette Avenue and South Eighth Street in downtown Minneapolis. Dating back to 1925, the property was known as the "Street Car" or "Terminal Block" because it was proposed to be developed as the main terminal for all city and suburban streetcars. Its 2017 major renovation intended to maintain the history of the building and its Art Deco style. Today, the building, which houses retail, restaurant and office spaces, features a new street-level entrance with a 2-story atrium, skyway lobby extension and a state-of-the-art media wall.



ALORICA | Owensboro, Ky.



PHOTOS: © HORTONPHOTOINC.COM

►► RETROFIT TEAM

ARCHITECT: Axiom Architecture, Owensboro, www.axiom-architecture.com

GENERAL CONTRACTOR: Jenkins-Essex Construction Co., Elizabethtown, Ky., jenkinsexsex.com

INSTALLER: Wilkerson Plastering and Acoustics, Owensboro, (270) 926-8170

►► MATERIALS

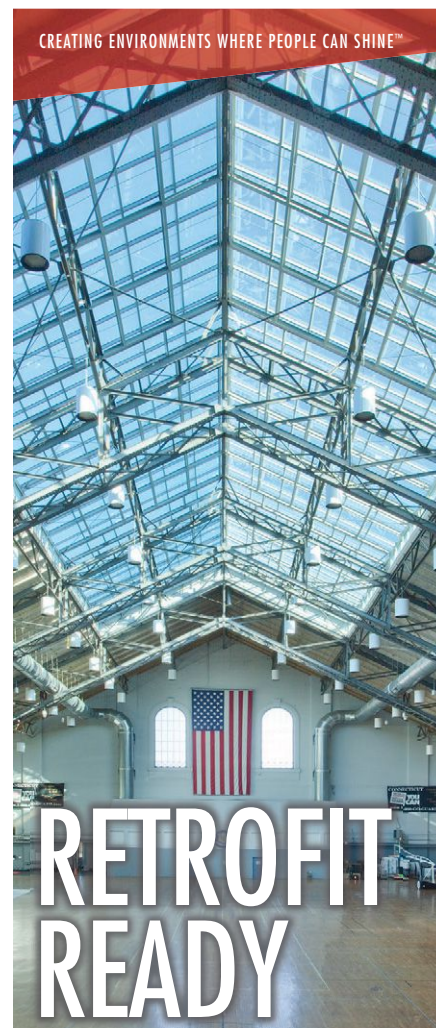
Several of Petersen's PAC-CLAD profiles in a blend of complementary colors contributed to the transformation of the building. The colors include Berkshire Blue, Cityscape, Matte Black and Weathered Zinc. Cityscape and Weathered Zinc are PAC-CLAD Cool Colors. The Petersen profiles include Flush/Reveal Wall panels, Flush/Vented Flush Soffit panels and 7.2 Exposed Fastener panels.

METAL WALL PANEL MANUFACTURER: Petersen, www.pac-clad.com

►► THE RETROFIT

Alorica, an Irvine, Calif.-based customer-engagement-services company, opened a regional call center in a former BB&T Bank building. The 830-job facility is one of Owensboro's largest-ever economic development projects, said Kentucky Governor Matt Bevin. Alorica employs more than 92,000 people at 150 locations worldwide.

The 5-story, 52,000-square-foot building underwent a massive transformation inside and out. The call center now has a modern, open concept with an "industrial tech" feel. The fifth floor is dedicated as an employee break area with hangout space and gaming systems, as well as a rooftop deck with a view of the riverfront and downtown. The ground floor is mixed use and includes a Bar Louie restaurant, which has 110 locations across the country.



SKYLIGHTS, WALL SYSTEMS & CANOPIES

Replacing an outdated skylight? Adding new daylighting systems to lighten up a space?

From translucent panels to glass and polycarbonate multi-wall, Major has your solution, all backed by industry-best warranties and unmatched customer service.



MAJOR
INDUSTRIES

SKYLIGHTS, CANOPIES & TRANSLUCENT WALL SYSTEMS

MAJORSKYLIGHTS.COM

Circle No. 83

888-759-2678

METAL'S METTLE

PHOTOS: METAL ROOF CONSULTANTS INC.

1.

A GALVALUME METAL ROOF AT AN INDUSTRIAL PLANT IN MANSFIELD, OHIO, STILL PERFORMING AT 32 YEARS OF SERVICE.

CONSIDER STANDING-SEAM METAL ROOFING WHEN SEEKING LONG-TERM PERFORMANCE AND SUSTAINABILITY

WRITTEN BY | **CHUCK HOWARD, P.E.**

In today's public conversations about how to properly reduce the country's growing infrastructure deficiencies, roads, bridges, dams, and water-treatment and sewage plants dominate the conversations. Less discussed, but equally important, infrastructure elements are the roofs on billions of square feet of public buildings throughout the U.S. Public buildings consist of K-12 schools; universities; community colleges; prisons; along with other federal-, state- and locally funded buildings.

According to current studies performed in North Carolina's public schools (K-12) and North Carolina state-owned facilities markets, the roof is equal to the HVAC

component as the largest unfunded need in building repair and/or replacement costs. (Read the report at bit.ly/2KKc3hU and download the webinar at bit.ly/2UoeZLK, respectively.) These infrastructure evaluation summaries are mirrored throughout the U.S. for public buildings. Per North Carolina and most states' general statutes, the roof is required to be designed, specified and installed in the most cost-efficient manner during the life of the structure. According to the Washington, D.C.-based U.S. Green Building Council LEED v4 for building design and construction, building components should last for 60 years or more. Some say this is the definition of sustainability.

(continues on page 64)



2.

THE TROY, OHIO, INDUSTRIAL FACILITY'S ROOF IN 2001—20 YEARS AFTER ITS SUCCESSFUL RETROFIT. AT THE WRITING OF THIS ARTICLE, THE ROOF STILL IS FUNCTIONING WITHOUT REPAIR AFTER 37 YEARS OF SERVICE.

DRIES AND COMPLIES



The ThinAir® Hand Dryer is where restroom efficiency meets restroom accessibility. It dries hands fast, uses as low as 300 watts and meets 4" ADA compliance standards when surface mounted. ThinAir features adjustable speed, sound and heat controls as well as a washable pre-filter. It represents a 95% cost savings when compared to paper towels, eliminating their labor, maintenance and waste while creating a more hygienic restroom environment.



TIME TO THROW IN THE TOWEL®

Circle No. 84

877.748.4915
exceldryer.com
sales@exceldryer.com





A METAL RETROFIT ROOF FOR WEST BRUNSWICK MIDDLE SCHOOL, PART OF BRUNSWICK COUNTY SCHOOL DISTRICT IN NORTH CAROLINA, WAS COMPLETED IN 2016.

ONE OF THE FIRST large industrial applications of the metal retrofit method took place at an industrial facility in Troy, Ohio, in 1981. A 102,000-square-foot plant and attached office with a flat roof was converted to a 1/4-in-12 sloped metal roof using light-gauge framing and additional insulation.



When considering a roof for a public building, a standing-seam metal roof should be considered as a possible choice.

Strength and Durability

In 1988, representatives of Brunswick County School District in North Carolina decided to install sloped metal roofs over failing existing roofs. Three high schools, totaling more than 350,000 square feet, were covered. In the mid 1990s, two of the district's elementary schools received partial retrofit metal roofs. Starting in 2012, district representatives initiated a program to convert three middle schools and one elementary school from flat roofs to retrofit metal roofs. Added together, these roofs total more than 850,000 square feet.

In September 2018, Hurricane Florence dumped more than 40 inches of rain and initiated hurricane and gale-force winds during a four-day period in Brunswick County. All the retrofitted metal roofs withstood these extreme weather conditions without panel replacement or any major repairs. See Photo 3.

It must be noted that public metal roofs, as well as all other roof systems, must be designed by a licensed architect or engineer in the state where they are to be installed and installed properly by a qualified contractor. When these requirements are met, and the design professional monitors the actual construction of the roof, a metal roof can be expected to resist the forces of extreme weather, such as Hurricane Florence in North Carolina. Of course, not properly designed or installed, any roof will

fail during such extreme events. Because hurricane-like conditions are becoming more prevalent, new wind-design calculations are included in the current International Building Code (IBC), as well as local code supplements.

Convert a Flat Roof to Metal

Any low-slope roof can be converted to metal, like the Brunswick County School District's roofs. In the early 1980s, the roofing industry developed a method for adding slope to an existing flat roof with a light-gauge framing system. This allowed existing buildings' flat roofs to be retrofitted with a new sloped metal roof.

One of the first large industrial applications of this metal retrofit method is shown in photos 4 through 6. In 1981, this Troy, Ohio, industrial facility's representatives converted a 102,000-square-foot plant and attached office to a 1/4-in-12 sloped metal roof using light-gauge framing and additional insulation. Photo 2 shows the same roof in 2001, 20 years later. At the writing of this article, the roof still is functioning and has needed no replacement or repair after 37 years of service.

Metal panels can be installed to a roof slope as low as 1/4-in-12, with the ability to obtain material warranties for the base Galvalume-coated metal materials for more than 20 years. In fact, based on a scientific evaluation of Galvalume metal roofs, the life expectancy of this roofing panel is well over 20 years. This was evaluated in a 2012 study sponsored by the Chicago-based Metal Construction Association and Zinc Aluminum Coaters Association, Olympia, Wash. The study included forensic tests at 14 existing Galvalume standing-seam metal roof sites around the U.S. with the average age of these roofs at more than 30 years at the time of testing.

The testing of these metal roofs, installed at slopes as low as 1/4-in-12, provided metallurgic results that proved these roofs will perform well over the 60 years expected by USGBC. (Access the study's full report at bit.ly/2Atltty.) Photo 1 shows a Galvalume metal roof that was part of the Galvalume study, installed at an industrial plant in Mansfield, Ohio. This roof had performed without repair or removal for more than 32 years at the time of the study.

The perception that metal roofs will

only perform for about 20 years and they need to be sloped at 2- to 4-in-12 is not true. A properly designed and installed standing-seam metal roof, whether new or retrofit, can be installed at IBC's minimum slope of 1/4-in-12 and is expected to last well over 60 years.

Existing Building Code

Building codes are kind to metal roofing. For example, metal retrofit roofs that load the existing building structure with light-gauge steel framing are exempt from the requirement of removing the existing roofs. In the 2018 version of the Existing Building Code, in situations where there are two or more existing roof coverings, the existing roof coverings are to be removed prior to the installation of a new roof membrane with one exception:

"Complete and separate roofing systems, such as standing-seam metal roof systems, that are designed to transmit the roof loads directly to the building's structural system and that do not rely on existing roofs and roof coverings for support, shall not require the removal of existing roof coverings." This exception language has been in all versions



of IBC since the first version in 1997.

In addition, because a metal retrofit system is considered a recovery roof, as opposed to a replacement roof, it is not required to include an upgrade of the insulation system to meet the current values established by the International Energy Code.

A RETROFIT METAL ROOF INSTALLED IN 2014 AT NARROWS ELEMENTARY / MIDDLE SCHOOL, NARROWS, VA., HAS A 1/4-IN-12 SLOPE. THE EXISTING SCHOOL BUILDING WAS CONSTRUCTED WITH A FLAT ROOF IN 1932.

new

Slant/Fin® Revital/Line

Aluminum Baseboard Replacement Cover

Replacement covers that breathe new life into your aging baseboard!



No tools needed for most installations! Slips right over existing back panel!



Laboratory tested for maximum heat output!



Made from Recycled Aluminum!

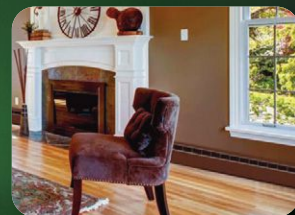


Introducing The Easiest Replacement Cover Available!

Revital/Line Replacement Covers slip right over your existing baseboard back panel! It couldn't be simpler! What's more, our covers have been laboratory tested to produce up to 40% more heat output than competitive replacement brands in the market today. Revital/Line covers nearly all of the standard residential baseboard installed in homes today. (Up to 8 1/2" H x 3" D) Contact your local representative or go to our website to find out more about this exciting new product!



Bring brilliance into any room



Available in Decorator Colors




We Build Trust and Comfort

www.slantfin.com




Consider Metal Roofing

When considering the roofing portion of public building infrastructure, a standing-seam metal roof—when designed and installed properly—can span a 60-year timeframe. A life-cycle cost analysis demonstrates a metal roof's cost-effectiveness for all types of commercial and institutional buildings, including public schools, prisons, universities and other buildings funded with public money.

In addition, existing buildings' roofs needing replacement or recovery, which account for approximately 75 percent of all public buildings, can be fitted with this type of roof—no matter the slope—with an approach that has been in existence for almost 40 years. Therefore, whether the public building is just being built or is in need of a retrofit roof, a standing-seam metal roof should be considered. 

AN ABANDONED HOSPITAL IN PEARISBURG, VA., WAS CONVERTED INTO A MODERN SHERIFF'S AND EMERGENCY SERVICES FACILITY IN 2016. A METAL RETROFIT ROOF WAS INSTALLED ON THE BUILDING.

Take Our Free AIA Course at www.SnowRetention101.com




The Originator of Polycarbonate Snow Guards
www.SnoBlox-Snojax.com Ph: 1-800-766-5291

RoofClamp RC And RCT Universal Mounting Clamps

Two Clamps Fit Most Panels!

RCT \$6 (250+)
 Fits 95% of today's standing seams including bulb and t-seams

RC \$5 (250+)
 Fits 90% of today's standing seams



Secure Solar Panels, Satellite Dishes, Conduit, and HVAC Lines.

1.5" Wide Base
 Fits Most
 Panel Profiles!




SnoBlox Deuce



Available in Clear, EcoBlox, & 11 Colors!

Bar Systems



Custom Color Matching Available!

VentSavers



Standing Seam
 Adaptor Plate
 Now Available!

Prevent Crushed Vent Pipes!

www.SnoBlox-Snojax.com

Circle No. 86

Ph: 1-800-766-5291

2019 INTERNATIONAL ROOFING EXPO®

REGISTRATION IS OPEN

NASHVILLE, TENNESSEE

FEBRUARY 11-13, 2019 | MUSIC CITY CENTER



Official Show Sponsor:



Official Show Publication:

**ROOFING
CONTRACTOR**

REGISTER NOW

USE PROMO CODE **AD100** FOR 15% OFF
CONFERENCE SUPER PASS.*

WWW.THEROOFINGEXPO.COM

*Discount not applicable to Manufacturing Agents/Dealers, non-exhibiting Manufacturers/Distributors or Wholesalers registrations. Discounts apply to new registration only; no refunds issued for pre-existing registrations.

THE | SHOP

NEW ORLEANS' CONTEMPORARY ARTS CENTER OPENS A COWORKING SPACE FOR DIVERSE TENANTS

WRITTEN BY | HUSSEIN ALAYYAN, LEED AP BD+C

PHOTOS: NEIL ALEXANDER, unless otherwise noted

At the corner of Camp and St. Joseph streets in New Orleans' eclectic downtown stands a 100,000-square-foot former warehouse building. Constructed in 1905 as the headquarters of K&B, a local drugstore chain, the building was donated to a passionate group of artists when K&B closed in the 1970s. The artists, who were intent on celebrating the growing trend of intertwining visual and performing arts, created the Contemporary Arts Center (CAC), a 501(c)(3)

organization that remains active today.

In addition to dedicating two floors and 10,000 square feet of the building to artists' bold experiments, CAC's education department engages more than 10,000 children and adults annually. This education and outreach offer students—most for the first time—the opportunity to work with established artists, cementing CAC's cultural significance in New Orleans.

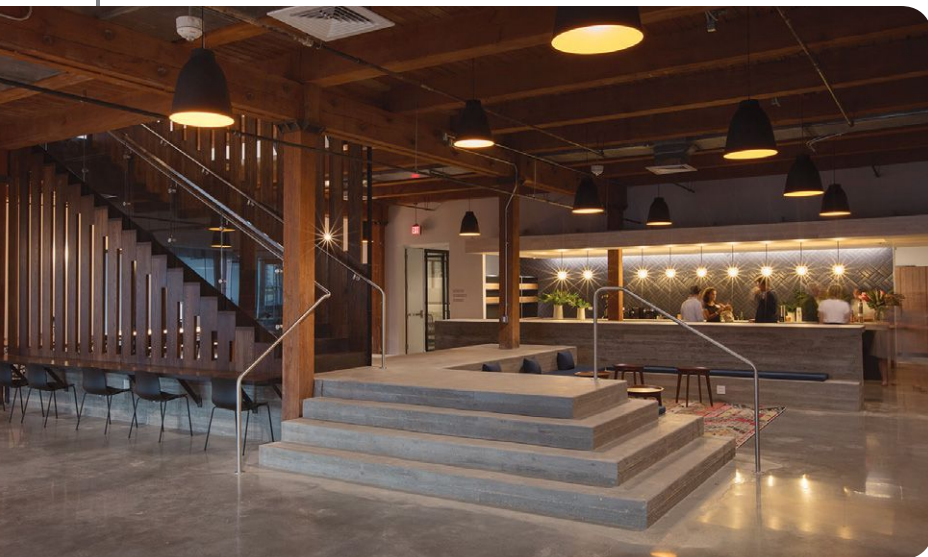
The third and fourth floors of the CAC building, however, have always been

underutilized. CAC representatives searched for years to find a way to generate a profit with the upper floors. In the fall of 2017, CAC completed a 40,000-square-foot renovation with local developer (and now tenant) the Domain Cos., transforming its third and fourth floors into an art-filled coworking space for a diverse group of creative professionals across a wide range of industries.

Designed by New Orleans-based Eskew+Dumez+Ripple Architects and constructed by Palmisano General Contractors,



- 1 To allow The Shop's users and Contemporary Arts Center patrons alike to enter the building through the main entrance at Camp Street, an existing 4-story atrium had to be uncovered, which maximizes daylight throughout the building.
- 2 3 4 Emerging from a 30-inch concrete podium, the ash-wood and steel staircase begins as a work surface, folding up to define an intimate meeting space beyond a wood screen. Moving upward, the bands of steel and wood thread into the treads of the stairs, passing through the fourth floor and bending to create an overhead trellis that defines a seating area.



To achieve the required fire separation between existing occupancy and the new office areas, 4 inches of concrete was laid over the wood floors on the third floor. The concrete then was polished, which complements the raw, industrial character of the space.

■ Retrofit Team

ARCHITECT OF RECORD //

Eskew+Dumez+Ripple,
New Orleans,
www.eskewdumezripple.com

- Steve Dumez, FAIA
- Jose Alvarez, AIA, LEED AP
- Hussein Alayyan, LEED AP BD+C
- Jill Traylor-Mayo, NCIDQ
- Emily Heausler, IIDA
- Andy Redmon, LEED AP

DEVELOPER // Domain Cos., New Orleans, (504) 304-0014

MEP ENGINEER //

YKM Consulting LLC, Metairie, La.,
ykmconsulting.com

CIVIL/STRUCTURAL ENGINEER //

PACE Group LLC, New Orleans,
www.pacegroupllc.com

GENERAL CONTRACTOR //

Palmisano Group, New Orleans,
wjpalmisano.com

CABINETWORK, CUSTOM WOODWORK AND FIXED SEATING //

Construct: Custom Architectural Fabrications LLC, New Orleans,
www.constructnola.com

also of New Orleans, the workspace includes 69 private offices, seven conference rooms equipped to meet today's tech demands, 15,000 square feet of amenity space known as The Commons and an intimate outdoor rooftop deck.

The Creation of The Shop

CAC's third and fourth floors had been extended gallery space and an area for costume fabrication for New Orleans' once-booming film industry. The existing conditions of the third and fourth floors were what many designers hope to find when tasked with a renovation: exposed masonry walls; historic wood floors distressed from prior use; and warm, exposed heavy timber columns and beams. Despite the beautiful backdrop, to create the coworking space, the design team had to overcome several challenges.

To allow The Shop's users and CAC patrons alike to enter the building through the main entrance at Camp Street, an existing 4-story atrium had to be uncovered. Approximately 50 percent of the existing drywall separating the upper floors from the atrium was removed and replaced with a 10-foot-tall glass storefront, maximizing daylight through the building. An existing projection into the atrium was converted into a fourth-floor enclosed balcony that acts as an "outdoor" lounge and study.

Fire code required the team to separate the existing occupancy from the new office areas. The required fire separation was achieved by laying 4 inches of concrete over the existing wood floors on the third floor. The concrete then was polished, which complements the raw, industrial character of the space.

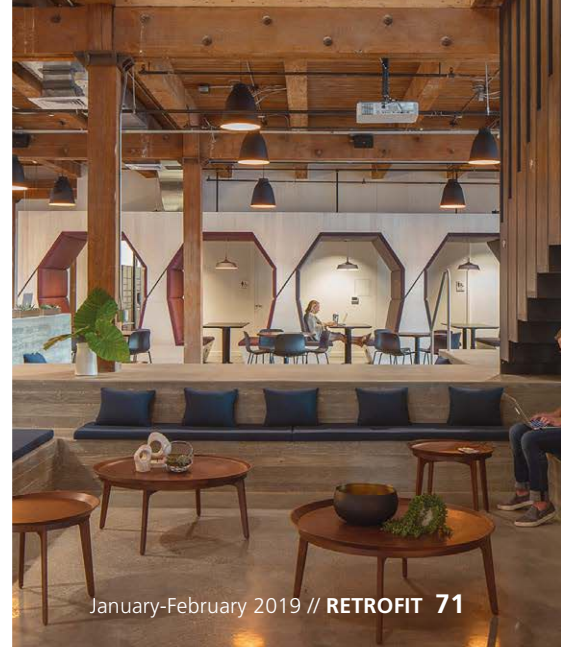
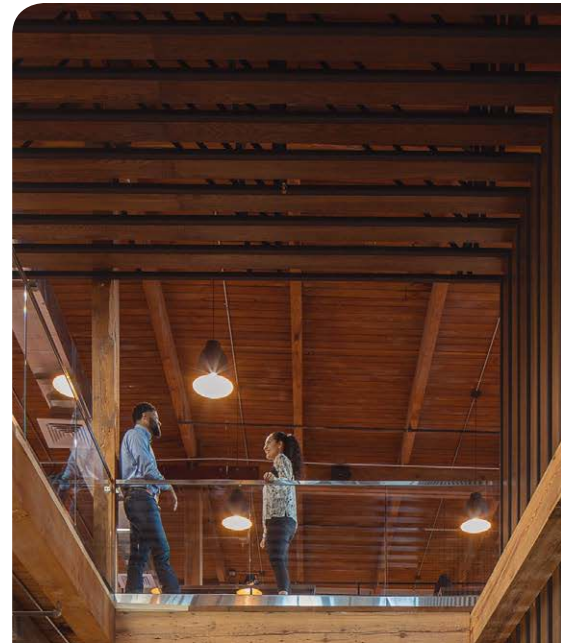
Connecting the two floors represented perhaps the greatest challenge, the solution of which led to the genesis of a significant unifying attribute: the feature stair. Elevator access had existed for all four floors; however, elevators are located in the lobby, and users would have to exit The Shop to enter the elevator. The design team created an openly communicating design with the feature stair.

Emerging from a 30-inch concrete podium, affording users an informal workspace and stage, the ash-wood and steel staircase is an organizing element in the space—programmatically and architecturally. It provides commons space and a central feature programmatically but also offers access between floors. A nod to the texture of the existing timber structure, the podium's rough board-formed finish is an elegant contrast to the smooth surface of the concrete floor.

Starting with the concrete slab, the stair begins as a work surface, folding up to define an intimate meeting space beyond a wood screen. Moving



The Shop includes 69 private offices, seven conference rooms equipped to meet today's tech demands, 15,000 square feet of amenity space known as The Commons and an intimate outdoor rooftop deck.





■ Materials

MOISTURE BARRIER // Sto Corp., www.stocorp.com

STOREFRONT AND SLIDING DOORS // Kawneer, www.kawneer.com

AUTOCLAVED AERATED CONCRETE // Hebel, www.hebel-usa.com

BUILT-UP ROOFING // Soprema, soprema.us

METAL-FRAME WINDOWS // Wausau Window and Wall Systems, www.wausauwindow.com

GLASS // Viracon, www.viracon.com

SKYLIGHTS // Birdview Skylights, birdviewskylights.com

ENTRANCES // Oldcastle BuildingEnvelope, obe.com

METAL AND WOOD DOORS AND EXIT DEVICES // ASSA ABLOY, www.assaabloy.com

FIRE-CONTROL DOORS, SECURITY GRILLES // Won-Door, wondoor.com

SPECIAL DOORS // Modernfold Inc., www.modernfold.com

LOCKSETS, CLOSERS AND PULLS // Yale, www.yalelock.com

SECURITY DEVICES // Kisi, www.getkisi.com

ACOUSTICAL CEILINGS // FilzFelt, www.filzfelt.com, and Ultima from Armstrong Ceiling & Wall Solutions, www.armstrongceilings.com

SUSPENSION GRID // Suprafine from Armstrong Ceiling & Wall Solutions

WALL COVERINGS // Maharam, www.maharam.com; Trove, troveline.com; NLXL, usa.nlxl.com; and Eykon, eykon.net

PLASTIC LAMINATE // Laminart, www.laminart.com

SOLID SURFACING // Caesarstone, www.caesarstoneus.com, and Cosentino, www.cosentino.com

OFFICE FURNITURE // Knoll, www.knoll.com, and DARRAN Furniture, www.darran.com

DOWNLIGHTS // LiteForm, www.liteformlighting.com; Eaton, www.cooperindustries.com; and Prima Lighting, www.primalighting.com

TASKLIGHTING // Lumato, lumato.com

EXTERIOR LIGHTING // Bruck Lighting, brucklighting.com

DIMMING SYSTEM, LIGHTING CONTROLS // Legrand, www.legrand.us

LAVATORY // Sloan, www.sloan.com, and Elkay, www.elkay.com

URINAL // Sloan

FAUCETS // Sloan and Chicago Faucets, www.chicagofaucets.com

BUILDING AUTOMATION SYSTEM // Siemens, www.siemens.com

WANT TO SEE EVEN MORE MATERIALS FROM THIS PROJECT?
View the story online at www.retrofitmagazine.com/contemporary-arts-center-coworking.


upward, the bands of steel and wood thread into the treads of the stairs, passing through the fourth floor and bending to create an overhead trellis that defines a seating area.

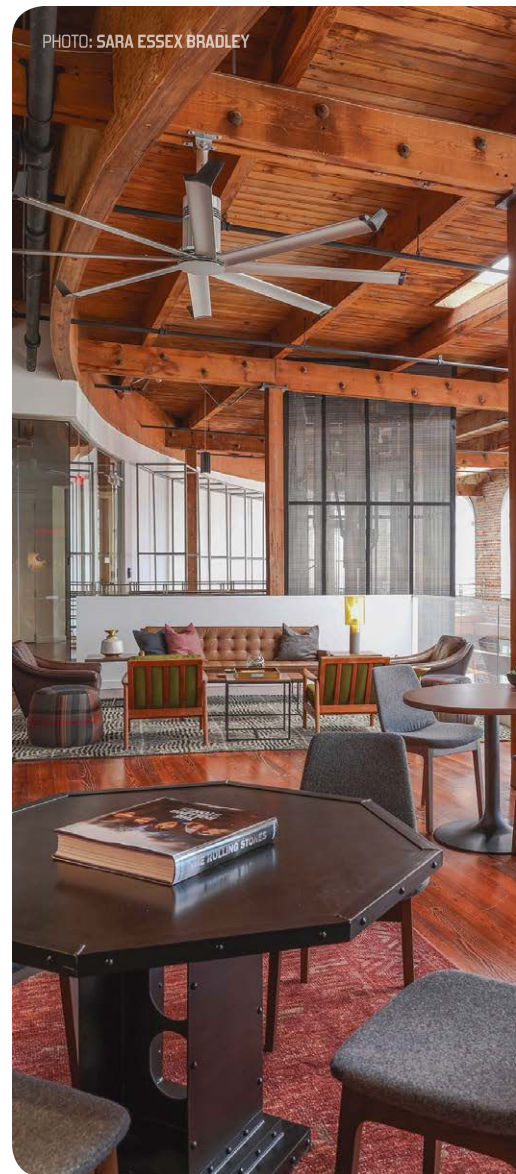
Elements and Features

Like a painting, the ash-wood and steel staircase anchors The Shop. Equally important, however, are the surrounding elements and features. The space is organized with private offices located along the perimeter. The offices vary in size to accommodate fulltime tenant needs. (The Shop houses fulltime tenants with permanent space, in addition to its coworking space.) Windows between offices provide additional light and create a sense of an open plan while maintaining privacy and security. Additionally, shared amenities like the conference rooms and copy/print center are centrally located, thus alleviating wayfinding concerns. Eclectic graphic wallpaper, light fixtures, furniture and rugs were selected to reinforce the varied nature of the changing media on display in the galleries below.

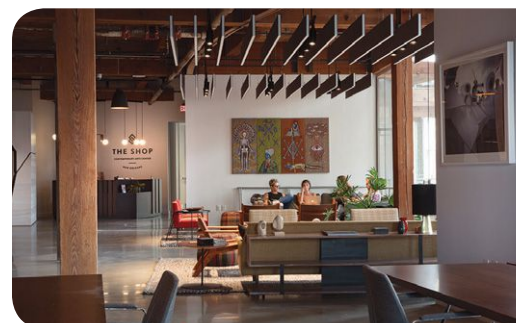
The heart of The Shop is The Commons, an area on the third floor designed to facilitate conversation and connection. It boasts a full kitchen, beer and cold-brew coffee taps, and communal and recreational space. Comfortable lounge furniture was sourced from a variety of vendors and paired with vintage pieces to bring a living-room sensibility to an office setting. Hot desks that allow multiple workers to use the same workspace at different times and fixed banquettes accommodate diverse types of work. Lighting was organized to delineate a wide variety of seating experiences, in addition to accenting key features, like custom murals that were commissioned throughout the space. Local and national artists were brought in to adorn the walls with the goal of connecting the coworking tenants with the art community. Phone booths were placed on both floors and allow for private conversations and quiet workspace. Some phone booths feature countertops while others have lounge seats. [Editor's Note: Learn more about the trend of installing phone booths into open office designs in "Trend Alert", page 74.] Decorative sconces and graphic wallpaper create a welcoming, intimate atmosphere.

All these elements merge together to create what is holistically a unified endeavor in support of New Orleans' community. Diverse tenants now occupy the space, including several independent non-profits, an interior designer, law offices and artists. Residency at The Shop also offers users full membership to the CAC, which CAC representatives report they are keen to enjoy. In only a short time since opening, The Shop achieved its target goal of 100 percent occupancy.

Designed to facilitate conversation and connection, The Shop offers small businesses, entrepreneurs, and arts-based professionals the resources they require to grow and flourish. As CAC representatives hoped, The Shop has been a resounding success. 



Windows between offices provide additional light and create a sense of an open plan while maintaining privacy and security. Comfortable lounge furniture was sourced from a variety of vendors and paired with vintage pieces to bring a living-room sensibility to an office setting.



CALLING for PRIVACY

WRITTEN BY |
ROBERT NIEMINEN

THE ONCE-EXTINCT PHONE BOOTH IS
RE-EMERGING AS A SOLUTION TO TODAY'S OPEN
(AND NOISY) OFFICES. BUT DOES IT GO FAR ENOUGH?

PHOTO: © GARRETT ROWLAND, COURTESY OF GENSLER

Since the advent of mobile phones, one of the most recognizable fixtures that has vanished from the landscape of our cities is the iconic phone booth. But with two-thirds of the world's population (5 billion) connected by mobile devices in 2017—a figure expected to reach 75 percent by 2020 according to a *Business Insider* report—who really needs an isolation booth to have a private phone conversation these days? Just about everyone, it turns out.



PHOTO: © MARK COCKSEGE, COURTESY OF GENSLER



PHOTO: © 2017 GARRETT ROWLAND, COURTESY OF GENSLER

[↑] Gensler created coworking space for Cherryduck Studios, London, and weaved the history of the building into the design elements, including the phone booths. [↗] New York-based Hudson River Trading supports traders with comfortable and private phone booths.

Although the standalone public payphone may be virtually extinct, the phone booth as a quiet personal space is emerging as a viable solution for today's noisy workplaces. As reported in our January-February 2015 issue, page 68, or bit.ly/2SMQD7D, the now-ubiquitous open office plan is not without its drawbacks. Privacy and acoustic issues continue to plague many workers who have, in some cases, resorted to rebuilding the proverbial cubicle wall with stacks of books or putting up the modern equivalent of a "do not disturb" sign: headphones.

As a result, design firms have been integrating a greater selection of workspace types and sizes—from the open benching desk systems to informal lounges and café spaces for collaboration, as well as a variety of conference rooms and private phone booths for more focused work—to give employees a greater sense of choice in where and how they spend their work days.

"What we're seeing now is more of a variety of types of spaces offered and a part of that is to include shared quiet and private spaces for people that

[←] Privacy booths are utilized in United Technologies Digital Accelerator in Brooklyn, N.Y.

work in open plans. This goes hand-in-hand with companies that are adopting a free-address type of work environment," says Maggie Willis, associate, CallisonRTKL, Washington, D.C. "The variety of spaces allows people to work where it suits the task they're doing that day better. That's kind of where things are going."

Jill Taylor, senior interior designer and associate at Eskew+Dumez+Ripple, New Orleans, agrees: "Clients are still asking for open office spaces even when their employees are pushing back a little bit, but what they are now providing—which they weren't before—is more choices of where you can get these private moments and where you can go to do your heads-down work. They're also providing more buffers between collaborative spaces and open workspaces."

What this shift points to is a needed clarification of the industry's understanding of the open plan concept as a whole, according to Amanda Carroll, workplace practice area leader and principal at Gensler, New York. "The degree of an open or enclosed plan environment in our research, we found, actually doesn't matter in terms of high-performance evaluation," she explains. "What matters more is the variety of choice the individual is given access to and the ability to self-author the

➤ Standalone phone booths can be retrofitted relatively easily into existing buildings where there is some open space available.



➤ Design consultancy Arcadis utilizes stand-alone privacy booths in its Washington, D.C., office.

type of data they need to best support effective work and then the type of atmosphere that supports that mode or task they're trying to complete. If anything, we've seen a greater conversation about the intention, distribution and variety of enclosed spaces to complement the open plan."

In response to the trend, a number of manufacturers have introduced a series of freestanding phone booths or privacy pods to help address the problems with the open plan office (see "Phone Booths for Your Next Project", page 77). Although these plug-and-play products appear to be the ideal solution for existing buildings and retrofitting scenarios, there are factors facility executives ought to consider for their particular situations.

The Benefits

Beyond the obvious cool throwback factor, these new phone booths offer exactly what they promise: a quiet space for much-needed visual and acoustic privacy in open environments. Employees can quickly step into a booth to make a personal call or spend a few extra minutes to focus on an important e-mail or presentation without distractions. Anecdotal evidence shows they are utilized frequently, too.

New Orleans' Contemporary Arts Center features a coworking development known as The Shop. Eskew+Dumez+Ripple installed a bank of built-in phone booths within The Shop that is seeing a lot of traffic, according to Taylor. "Every time I go over to visit this space, at least two out of

three booths are being used in any of the different spaces at any given time. I would say they're definitely successful," she says. [Read more about The Shop in "Transformation", page 68.] Taylor adds other clients also are requesting privacy pods for single and double occupants, especially in environments that lack a variety of different workspaces.

As businesses are increasingly required to adapt to change, Carroll says greater flexibility is required in the workplace—and detached privacy booths offer a great temporary solution. "A phone room that's a product that stands alone is a great option for an office where they've exceeded growth expectations and they need to do some things in the interim before they design the right space for the long term."

Willis characterizes these products as "a great solution for providing short-term privacy, which I think a lot of people are looking for now. They work in these open environments, and they don't have a place to take a personal phone call or just get away from the open plan. I think they solve that type of issue," she notes.

Additionally, many of these standalone phone booths can be retrofitted into existing buildings relatively easily. Taylor notes the pods her firm has designed or seen on the market are relatively small, ranging in footprints of just 4 feet by 4 feet or 5 feet by 5 feet. "You can tuck them in just about anywhere you have a little extra square footage, which is a good thing if you don't require a lot of space," she says. "Even the freestanding ones are even easier to just drop in where you have some open space, and then they become more of a [design] feature."

The Drawbacks

While prefabricated booths appear to be a very simple plug-and-play remedy for existing interiors, there are disadvantages to them, as well. These drawbacks can range from costs, code compliance, acoustics and ergonomics, depending on the make and model unit.

■ **COST.** Price is perhaps the biggest barrier to entry at the moment. A cursory search of freestanding privacy pods reveals prices ranging from approximately \$4,000 for single-occupant models to \$12,000 for multiple-occupant versions. Given that

A man with glasses and a beard, wearing a grey sweater and dark pants, is sitting in a large, red, teardrop-shaped phone booth. He is holding a book or magazine and looking thoughtfully at it. The booth is made of a plush red fabric and has a black base. In the background, another similar booth is visible, and a man in a white shirt is sitting at a table. The office has a modern, industrial feel with exposed pipes, a concrete ceiling, and many small, white, cone-shaped pendant lights hanging from the ceiling. The floor is a light-colored wood or laminate.

PHONE BOOTHS FOR YOUR NEXT PROJECT

- JABBBRBOX, www.jabbbrrbox.com
- MURAFLEX, www.muraflex.com
- NEVINS, nevins.co
- SPACEWORX, spaceworx.us
- ZENBOOTH, zenbooth.net

[←] In Cleveland, American Greetings' employees can be creative in privacy pods designed for double occupants.

[→] Employees in open office environments now can make personal calls or complete heads-down work in small privacy booths or pods as demonstrated in The Shop, New Orleans.

PHOTO: NEIL ALEXANDER

multiple units are most often required, the initial investment can be a considerable one, especially for smaller companies.

■ **CODE COMPLIANCE.** Carroll and Willis note most standalone booths require a step up to enter them, which presents a challenge in terms of accessibility. Carroll says the booths “are generally so small they don’t really accommodate any clearances for typical ADA criteria.” In cases where

ADA-equivalent spaces are mandatory, built-in solutions that address these requirements may be the best option.

Additionally, Carroll points out some freestanding booths have integrated ventilation and sprinkler coverage, which makes for an easy installation and ensures a safe environment. However, “not all products out there call for that,” she says. “There is a pretty broad deviation between vendors

and different manufacturers relative to how integrated those solutions are and how fast they come online when they move into your space and at what expense.”

■ **ACOUSTICS.** Although various furniture solutions and privacy pods can play a role in mitigating unwanted noise in the workplace, “they’re not going to solve all of the acoustic issues people might be having,” Willis explains. In fact, Carroll emphasizes the need to conduct testing to determine their efficacy for acoustic privacy. “You’re going to have perhaps even greater dissatisfaction if it’s not delivering on the one key criterion that matters to the user, which is acoustic privacy, generally,” Carroll says.

■ **ERGONOMICS.** Generally speaking, freestanding or built-in phone booths are not designed for use over extended periods. Willis explains, “It’s not something I would recommend to someone to go work in all day, unless you’re going to be providing a sizable table and some sort of ergonomic chair.” However, she points out most employers don’t want people to overuse them,



SPEAKERS INCLUDE










Attendees will hear case studies and best practices on how to optimize building performance, extend lifecycle of vital HVAC equipment and building systems, and improve occupant comfort.

COMMISSIONING | ENERGY MANAGEMENT | BUILDING DIAGNOSTICS

APRIL 15-18, 2019

CARIBE ROYALE ALL-SUITE HOTEL ■ ORLANDO, FL



REGISTER TO ATTEND BEFORE
MARCH 15
AND
SAVE 10%
WITH PROMO CODE
ENERGY 10

CASE STUDIES & BEST PRACTICES IN:

- Existing Building Commissioning
- Test & Balance
- Data Analytics
- Health Care Commissioning
- Demand Response
- Building Envelope
- K-12 Education Commissioning
- Cybersecurity for Energy Managers
- Commissioning a Pro-sports Stadium

WHO ATTENDS CxENERGY?

- Commissioning Providers
- MEP Engineers & Energy Managers
- HVAC Testing & Balancing Professionals
- Building Owners & Facility Managers
- Lighting & Control Technologists
- Utilities & Energy Service Providers
- Plant & Facilities Engineers
- Building Control & Automation Experts
- Code Consultants
- Government Officials
- Financing Experts

PRESENTED BY:





www.CxEnergy.com

info@commissioning.org | 202.737.7775

so ergonomics isn't necessarily a required characteristic but a factor to consider. Educating people about the proper use of the booths is key, she adds.

Other Considerations

Ultimately, when a client requests privacy pods within a space, it's typically an indication there's a need within the environment that requires a solution—and phone booths may or may not be the answer. In Gensler's research, Carroll notes there is a strong distinction between a sense of perceived privacy and actual privacy. In other words, facility executives may want to consider other design and furniture solutions that would work as well as booths in certain cases and may come in at a lower price point.


"I'd say look at some of the products not necessarily providing complete privacy in an enclosed setting; look at other products where perceived privacy can be achieved and locate those items in a way that they have a really strong correlation to good daylight or views or a naturally quiet audible tone and experiment because space is at a premium and people's preferences change daily," she recommends. "The more you can find ways to create manipulatable, flexible solutions and respond to your users, you'll find there's even greater satisfaction because people feel like they're valued and they're being offered choice and variety and ways to really control their work experience—and that empowerment is key to a high-performance workspace."

That being said, if phone booths or similar privacy pods are the preferred solution, Carroll says co-locating them in clusters is a key factor in their effectiveness. The reason being is there's a higher probability of availability of an open booth when grouped together, which leads to greater utilization, assuming they are not set up on a reservation policy and are located within a reasonable proximity of users.

Additionally, from a design perspective, Willis suggests paying attention to ceiling heights; lower ceilings may give the appearance the booths are out of place or scale. "In a double-height space where you have high ceilings, they look really neat and almost like an architectural element, whereas somewhere you have lower ceilings, they may not have the same impact."

The Verdict

There's no question standalone phone booths offer an innovative and elegant solution to the challenges in many open plan workplaces—and it's a trend that likely isn't going away anytime soon. However, a one-size-fits-all or quick-fix approach to privacy and acoustics isn't the answer in the long run. Rather, it's about understanding the needs of end users and

providing a variety of spaces that support them. "If you have a ton of workstations and you just add two or three of these focus pods, I don't think that's necessarily going to solve the problem," Willis says. "It's about providing other types of spaces, providing huddle rooms or the adequate amount of meeting rooms so people aren't meeting at their desks and disturbing their neighbors." 



R-Mer Force
Stronger. Faster. Easier.

- No Flashings
- No Surface Penetrations
- Flawless Finish

Watch how R-Mer® Force is installed!
Visit garlandco.com/rmerforce to learn more.

The Garland Company, Inc.®
www.garlandco.com

Circle No. 89

AD INDEX

JANUARY-FEBRUARY 2019



Acme Brick Tile and Stone Page 83
www.acmebricktileandstone.com



Armstrong Ceiling and Wall Solutions Page 2
www.armstrongceilings.com



ASSA ABLOY Adams Rite Page 15
www.adamsrite.com



Bradley Corp. Pages 31, 81
www.bradleycorp.com



Cambridge Engineering Inc. Page 36
www.cambridge-eng.com
(800) 899-1989



CENTRIA Page 81
www.centria.com/reformulate



Crown Doors Page 29
www.crowndoors.com
(320) 238-2616



CxEnergy Page 78
www.cxenergy.com

DORLEN PRODUCTS INC.

Dorlen Products Inc. Page 14
www.watalert.com



Dura Coat Products Page 57
www.duracoatproducts.com



Duro-Last Page 49
www.duro-last.com
(800) 248-0280



Engineered Products Co. Page 53
www.engproducts.com
(800) 336-1976



Excel Dryer Page 63
www.exceldryer.com



Extech Inc. Page 33
www.extechinc.com



Extron Page 13
www.extron.com
(800) 633-9876



Flex Page 19
www.flexroofingsystems.com



Flex-Ability Concepts Page 12
www.flexabilityconcepts.com
(866) 443-3539



The Garland Co. Inc. Page 79
www.garlandco.com



GSSI Page 17
www.gssisealants.com
(800) 288-9489



International Roofing Expo Page 67
www.theroofingexpo.com



Iota Engineering Page 12
www.iotaengineering.com
(800) 866-4682



Kingspan Light + Air Page 51
www.kingspanlightandair.com



Major Industries Page 61
www.majorskylights.com
(888) 759-2678



Mitsubishi Electric Page 3
www.mitsubishipro.com



NanaWall Page 84
www.nanawall.com



National Gypsum Page 7
www.soundbreakxpretofit.info



Navien Page 9
us.navien.com



NEWBRICK Page 37
www.newbrick.com



Petersen Pages 4, 81
www.pac-clad.com
(800) 323-1960



Phifer Page 81
www.phifer.com



RSK Avanti Partners Page 81
(972) 234-0180

SAMSUNG HVAC

Samsung HVAC Page 11
www.samsunghvac.com



Schweiss Page 8
www.bifold.com



SlantFin Page 65
www.slantfin.com



Sloan Page 27
www.sloan.com



SnoBlox Page 66
www.snoblox.com
(800) 766-5291



StarLine Page 55
starlinebuildings.com/retrofit



St. Cloud Window Page 44
www.stcloudwindow.com



Universal Lighting Technologies Pages 45, 81
www.unvlt.com



Weil-McLain Page 59
www.weil-mclain.com



WhiteWalls Page 14
www.whitewalls.com

WOOSTER PRODUCTS

Wooster Products Page 8
www.wooster-products.com
(800) 321-4936



ZIPWALL Page 23
www.zipwall.com

RSK Avanti Partners, LLC

Insightful + Strategic Consulting

Focused on Building Construction Markets Through Product + Market Development

RSK Avanti Partners is a full-service consulting firm with expertise in conducting market studies, developing products, marketing plans and promotional tools.

RSK and its team of associates bring over 130 years of credible experience to help serve our clients around the world.

Our proficiencies include:

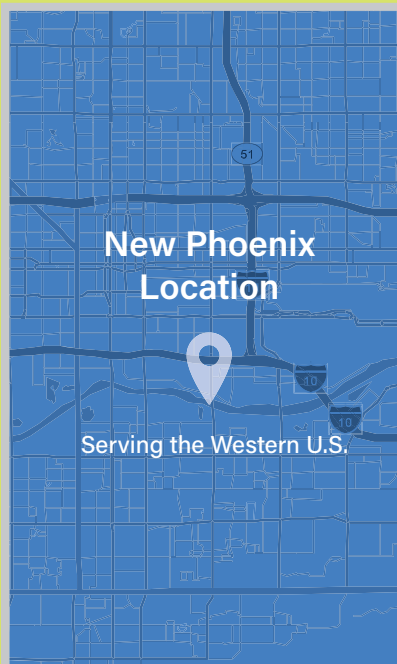
- Product line assessment: metal building components, coatings and integrated solar technologies
- New business development
- Strategy business assessment and planning
- Market research and product line development
- Sales planning and training

www.rskavantipartners.com

972-234-0180

Email: rgscichili@aol.com or skriner1@verizon.net

Circle No. 90



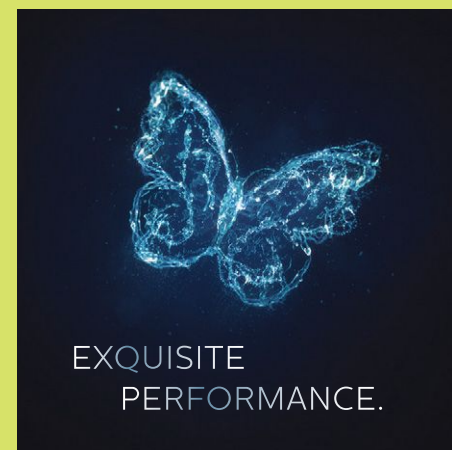
New Phoenix Location

Serving the Western U.S.



Circle No. 91

PAC-CLAD.COM



EXQUISITE
PERFORMANCE.



CLEAN. RINSE. DRY.
ALL-IN-ONE WASHBAR.



COMMERCIAL WASHROOMS
BROUGHT TO LIFE

Circle No. 92

bradleycorp.com/washbar



Circle No. 93



Quality. Service. American Made.

Specify SheerWeave,
the world's most trusted
brand of solar screen fabrics.



phifer.com/suncontrol
800-221-5497



We want to make a confession.
We like **EASY.**

**140K+ HOUR LUMEN
MAINTENANCE**
CALCULATED AT L70

**7 YEAR
WARRANTY**



Universal's **SOLUTIONS**
put you in **CONTROL.**

Learn more at

<https://unvlt.com/products/led-retrofit-kits-luminaires/>
or call **615.316.5322**.

For a list of DesignLights Consortium® QPL listed products
please visit www.designlights.org/qpl/en/saved/UBU24XJ



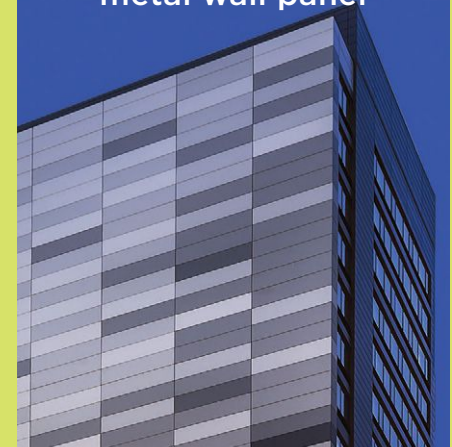
A member of the Panasonic Group

Panasonic

Circle No. 94

FORMAWALL®

the world's safest
foam-insulated
metal wall panel



CENTRIA

CENTRIA.com/reformulate

Circle No. 95

DREAM IT, DRAW IT, BUILD IT

Ware Malcomb Assists with an Architecture-inspired Children's Museum Exhibit



PHOTOS: WARE MALCOMB

Ware Malcomb, an international design firm with 22 offices around the U.S., provided pro-bono design services for an interactive summer exhibit at the Irvine, Calif.-based Pretend City Children's Museum. The exhibit, called "Dream it, Draw it, Build it", ran through Sept. 3, 2018.

The "Dream it, Draw it, Build it" exhibit featured three activity zones, each representing various aspects of the architectural design process. Zone 1 (Inspiration/Process/Methodology) is where children could bring their dreams to life with a dress-up corner and inspiration wall. In Zone 2 (Drawing/

Planning/Thinking), kids experimented with drafting tools and explored brainstorming processes during the initial stages of design. Finally, in Zone 3 (Applying/Building/Materiality), three free-play activities were available for kids to collaborate, experiment, and take the sketches they created in the previous zones and bring them to life.

"Ware Malcomb was proud to partner with Pretend City to inspire the future generation of architects with this unique exhibit," says Jinger Tapia, Ware Malcomb principal of design. "It added a new dimension of summer fun for these kids."

"An interactive hands-on experience is vital for children," adds Sandra Bolton, executive director of Pretend City Children's Museum. "'The Dream it, Draw it, Build it' exhibit encouraged children to explore all aspects of architecture and design by visualizing a concept and making that concept a reality. We were very fortunate to have this exhibit design sponsored by Ware Malcomb."

Ware Malcomb client Ganahl Lumber, Costa Mesa, Calif., donated the lumber for the project.

For more information, visit www.pretendcity.org/dream-it. 

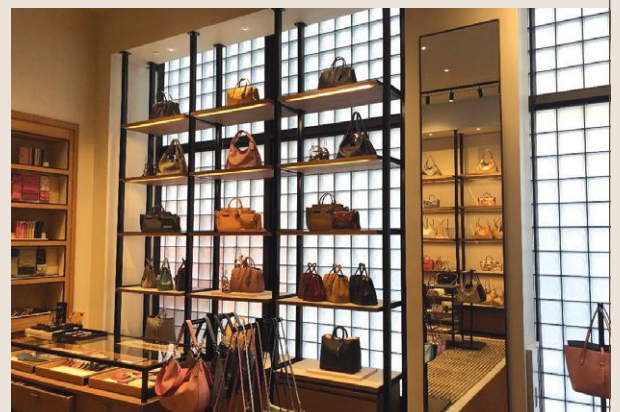


To Fashion a Statement on New York's 5th Avenue, Coach® Chose the IBP Glass Block System.

To create a dramatic new exterior for their flagship store on America's most famous retail avenue, the design team opted for the vintage appeal and soft interior lighting of glass block. To meet the constraints of construction work on 5th Avenue, they chose the mortarless, aluminum grid system from IBP.

"Using mortared glass block would have required a week just to set 50 foot tall scaffolding. The IBP system was constructed off-site and the entire installation took one week," said Steve Boesch, VP, GBA Architectural Products + Services.

The lighting effect on product displays is dramatic, showing products bathed in natural light without the background distractions of clear glass. The success of the retrofit has prompted Coach to incorporate glass block—and IBP—into the design of newer stores.



IBP
an Acme Brick company

**ACME
BRICK**

Steve Weddle | 800.932.2263 | 817.390.1505 | sweddle@ibpglassblock.com | www.ibpglassblock.com
Visit us at: AIA Conference on Architecture | June 21–23, 2018, Acme booth 1839 | Javits Center, NY

Stuart Vevers, Coach Creative Director | William Sofield, Studio Sofield, New York, NY

Circle No. 96



LIMITING.

Our HSW systems' single track sliding glass walls stand up to the toughest weather and commercial use. With limitless spans and place-anywhere swing doors that convert to panels and slide away, our systems maximize space—while leaving views (and creative opportunities) entirely unobstructed. Learn more at nanawall.com/hsw.

NanaWall®



Circle No. 97

Boundaries **Unbound.™**