

THE PRODUCT PUBLICATION OF THE U.S. ARCHITECTURAL MARKET

# Architectural PRODUCTS

November 2016

In theory, the main purpose of a business publication, such as this one, should be to convey information that facilitates the job of its readers...

Now in its 6th iteration, we hope this year's Product Innovation Awards deliver on this promise with items reflective of the trends driving design.

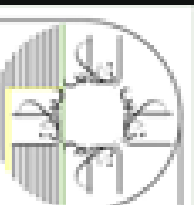
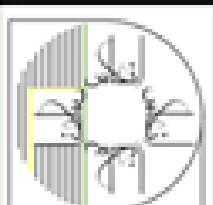
PIA·16



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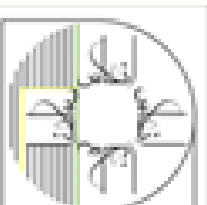
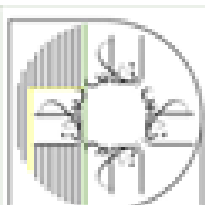
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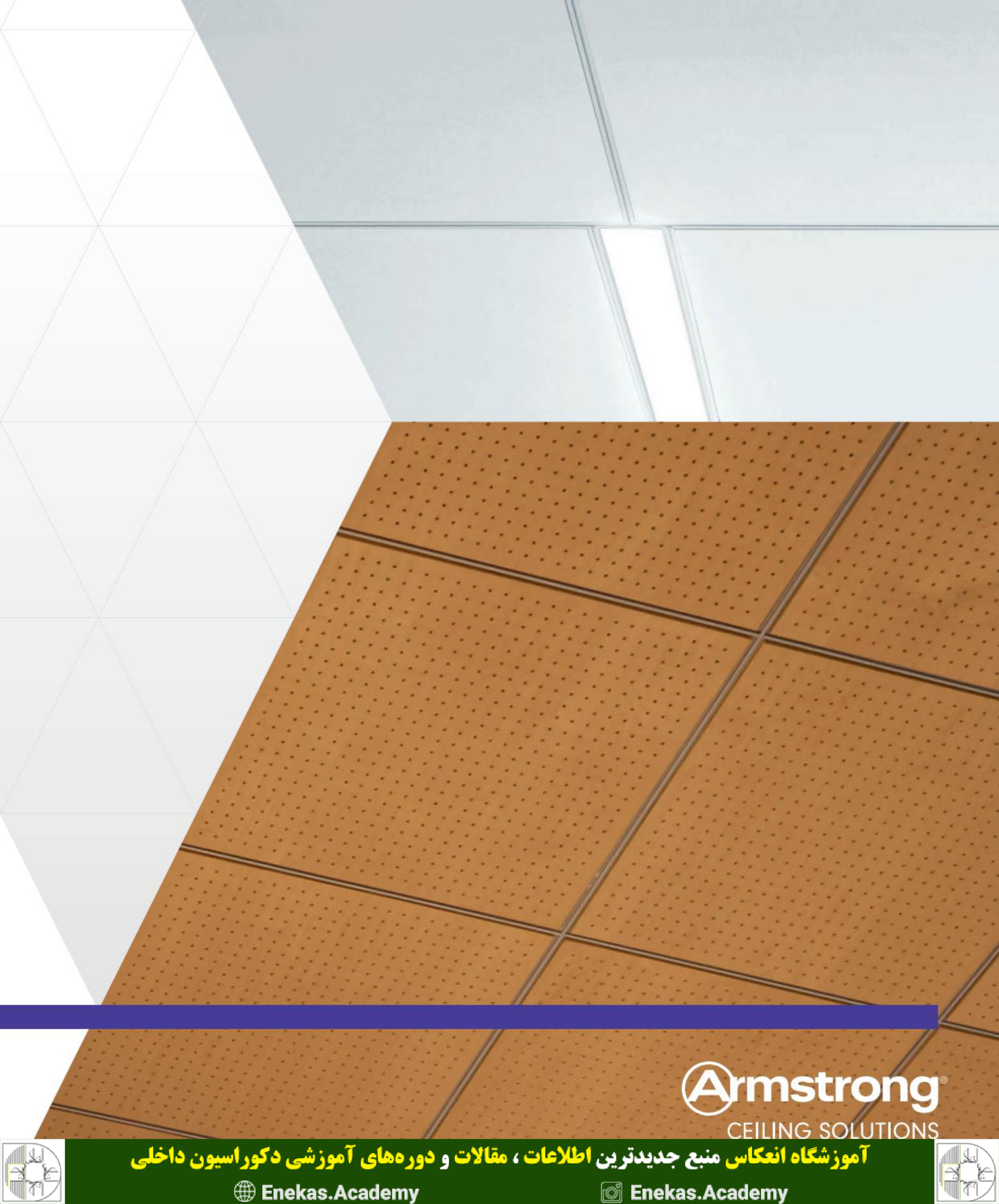
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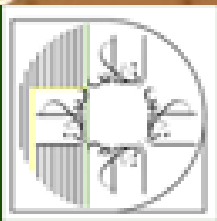
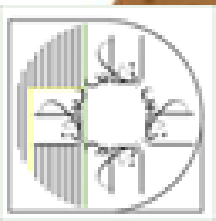


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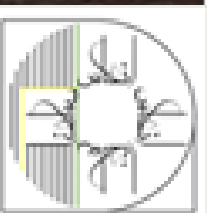
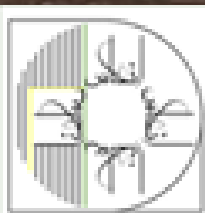
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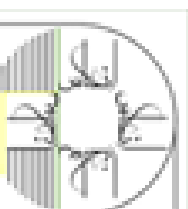
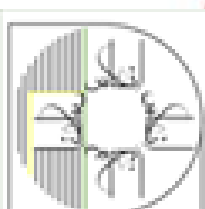
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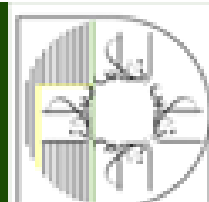
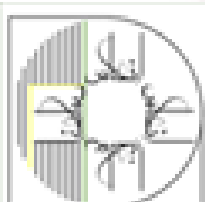


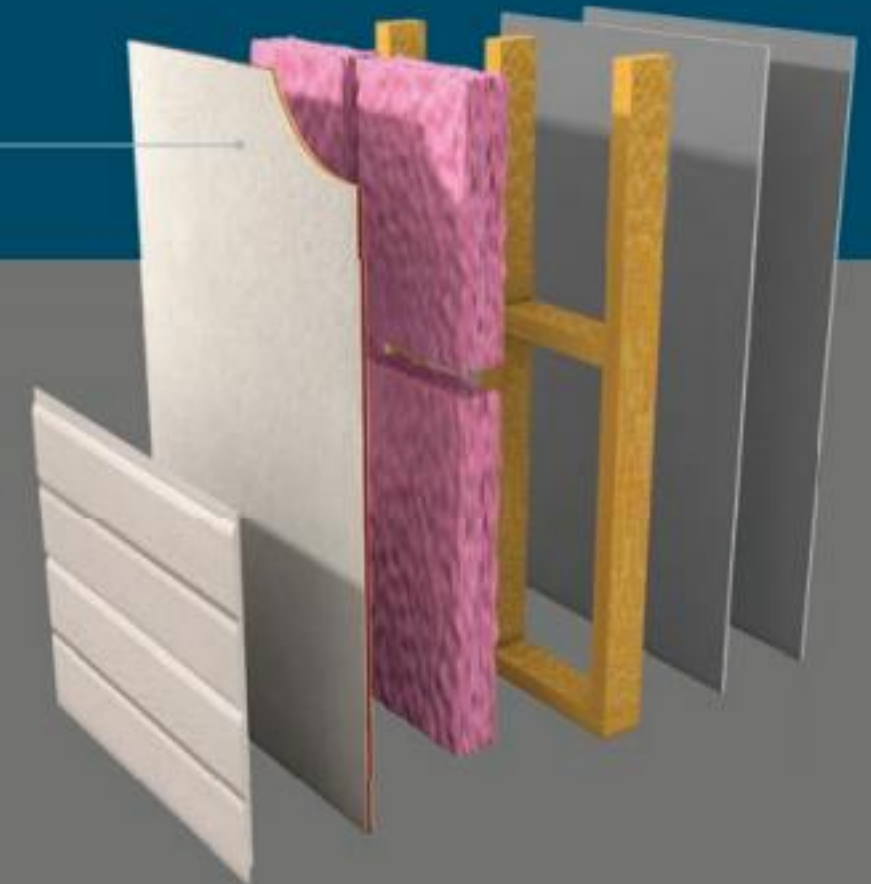


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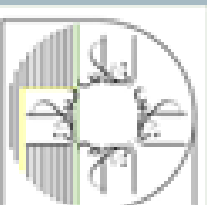
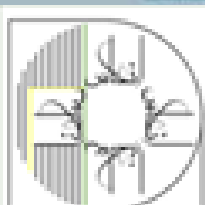
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Michael Lucas, Basham & Lucas Design Group



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Architect: Basham & Lucas Design Group  
Installing contractor: Mac Johnson Roofing  
Profile: Snap-Clad  
Color: Galvalume Plus

CASE STUDY



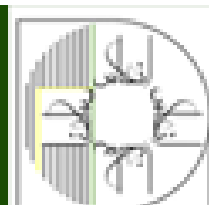
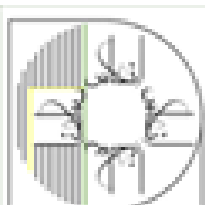
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66



78



33



on the cover

**Mirroring Trends:** Now in its sixth year, we hope the annual PIA awards—judged by peers in the design community—offer up possible solutions to the trends driving design today. Page 42.

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features

- 31 Trend Lines** by Chuck Ross  
**Readying the Roof for Solar:** A number of decisions must go into roof design when adding PV, not the least of which are structural and PV attachment considerations.
- 90 Form** by Mindi Zissman  
**LondonHouse, Chicago**  
An historic office building is married to a glassy tower to create a trendy, new hospitality space on the city's riverfront.
- 98 Function** by Alan Weiss  
**Uptown Lofts, Pittsburgh**  
This pair of affordable multi-family residences are breaking new ground: one is PHIUS certified, the other was built to code; their performance will offer invaluable data.

special section: the 2016 Product Innovation Awards

**Product Innovation Awards**

A number of truly novel products, including bacteria-killing paint, join a stable of maturing products that are addressing the trends driving current design, be it performance, materiality/ environmental stewardship, human health or items that help deliver simply inspirational spaces.

42

departments

|  |           |   |            |
|--|-----------|---|------------|
| <b>Perspective</b>                     | <b>8</b>  | <b>Specifiers' Solutions</b>                    | <b>104</b> |
|  |           | ▶ Furnishing O'Hare's public spaces             |            |
|  |           | ▶ Balcony railings for a high-end resort        |            |
|  |           | ▶ Permeable surfaces in downtown Minneapolis    |            |
|  |           | ▶ Lighting control in healthcare spaces         |            |
|  |           | by John Mesenbrink                              |            |
| <b>Resources, Events &amp; Letters</b> | <b>10</b> |   |            |
| <b>On Spec</b>                         | <b>12</b> | <b>Product Literature</b>                       | <b>113</b> |
| ▶ Water-Resistive Barriers             |           | Resources for product + material considerations |            |
| ▶ Specifying shading with fenestration |           |   |            |
| <b>Product Developments</b>            | <b>16</b> | <b>Ad Index</b>                                 | <b>115</b> |
| ▶ Acoustics                            |           |   |            |
| ▶ Light as material                    |           | <b>Last Detail</b>                              | <b>116</b> |
| ▶ Really creative CLT                  |           | Marlene Liriano                                 |            |
| ▶ Resiliency solutions                 |           | by Megan Mazzocco                               |            |
| ▶ Franklinesque wallcoverings          |           |   |            |
| ▶ Greenbuild recap                     |           |   |            |
| by Megan Mazzocco                      |           |   |            |

# Creating a Culture that Appreciates Culture

This is our annual Product Innovation Awards issue, and as part of the judging panel, I certainly had an opportunity to exercise my vote. This month most of us will have had the opportunity to exercise our right to vote for the top office in the country. But beyond the presidency, I want to encourage, at least the architectural community, to express its voice when it comes to encouraging great public architecture and spaces, because I certainly believe they have key roles in making America great.

Case in point, on a recent trip to New York, I had the chance to experience a couple of emotionally moving pieces of architecture in Manhattan I hadn't had the opportunity to visit: Calatrava's Oculus, and of course, the 9/11 memorial by Michael Arad of Handel Architects. The latter was very powerful, sobering and, at the same time, uplifting, in seeing all the people there who very much made a pilgrimage on a rainy day to remember this important moment in our shared American experience.

The Oculus—the terminus of the World Trade Center Transportation Hub—also was good for my soul in that it's still possible to see such grand public statements. Just the day prior, I had occasion to be in Grand Central station for business I had outside the city. Clearly an out-of-towner, I took the time to just stare up and appreciate the grand old dame with its twinkling, constellation-studded ceiling. Later that day I spent some time a few blocks away in the New York Public Library—mainly to get out of the rain—but once again, I was struck by this magnificent building. Side bonus—the library had a mini-Hamilton exhibit on display—not to Lin Manuel Miranda—but to the actual first treasury secretary. Beyond some great personal letters and effects from the man, the library also had on hand several bound newspapers with contemporary (at the time) accounts about the man—Huzzah, print!

But just as I relished this moment of historic preservation and timely re-purposing, I learned of a literary horror back home in Chicago. At a west suburban college located in the one-time operational HQ of Al Capone—and still a current-day cornucopia of corruption—this "salty" school's boss ordered the disposal of hundreds of books from the library's second floor to make way for much needed space for special education services. In this instance, I'm not talking about the institution moving and storing said tomes, but physically throwing them in the garbage. Another black day for Chicago's near-west side, which is desperately trying to rebrand itself as a nice place to live—just not a place to read or educate.

Oddly enough, the library was only recently renovated, but I'm guessing book eradication wasn't part of the architect's master plan. A cautionary tale

for those obsessed with all things digital.

Where am I going with this? In the hardscrabble fight for real estate, as a society, we cannot crumble to such small-mindedness. Not only must books have their place, but inspiring, grand spaces

**We need new public spectacles of an aspirational sort—not the kind we've seen played out in the presidential debates.**

also must not be discarded with such cavalier disregard, which I fear is becoming the norm. In fact, like the Oculus, we need new public spectacles of an aspirational sort—not the kind we've seen played out in the presidential debates. The aforementioned is filled with retail outlets, and the lessees don't seem to be complaining. Maybe that's the bigger issue—finding a logical co-inhabitant. I see in New York there's lots of talk about re-constructing the old Penn Station upon the bones of the old post office adjacent to Madison Square Garden. Here's one big "yeah" vote from this guy.

But where else? New York's High Line and Chicago's Millennium Park are great examples showing what can result when creativity meets public space. I'm also inspired by the things coming out of the London Serpentine Festival (check out p. 20, as well as the October issue of our sister publication, *Architectural SSL*, for some of the cool structures wowing there). Please share your ideas of what could be the next great American park or public building—maybe even library given this distaste for paper.

In the interim, in the following physical media, please enjoy this year's selection of honorees. In general, I'm seeing a maturation of product, as manufacturers respond with upgrades that are better helping designers achieve their goals. There also continues to be a continued trend of interesting materials that are making for a bevy of cool new products. But who am I to judge? Exercise your right to form your own opinion, and let us know which products you find that really rock.



Jim Crockett, editorial director

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in Modular sizes, Chalk White (K13-3056) in Saxon size,  
Barely Grey (K08-6008) in Norman size, and  
Carbon Black in Utility size.

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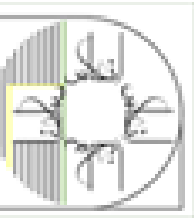
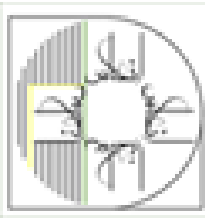
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## resources

## SHOWROOMS, RESOURCE CENTERS

**Soprema's new training center and offices** in Hayward, Calif. provides customers of Soprema, Resisto and the newly acquired Chem Link and education and training to the industry.

**Alexander Marchant has opened** its Texas showroom showcasing the Boffi bath collection.



◀ **Eskayel, a New York-based surface design firm**, has opened a showroom at 75 S. 6th St., Williamsburg, Brooklyn, N.Y.

## TRANSPARENCY UPDATES

**Humanscale is the first-ever manufacturer** to achieve a Living Product Challenge certification for their Float table and Diffrient Smart task chair.

**Tarkett has released** a Material Health Statement. The MHS is a verified product ingredient disclosure and material assessment declaration.

**Find free access** to the HPD Library at [hpd.smith-group.com](http://hpd.smith-group.com); furthermore, *HPC v2.0 User Guide* is out as a pre-release copy to HPDC members; it will be publicly available in October.

**An online guide** from the American Society of Landscape Architects (ASLA) explains how communities can better protect themselves from natural disasters through resilient landscape planning and design. The guide is organized around drought, extreme heat, fire, flooding and landslides. Biodiversity loss is also explored. Visit [www.asla.org/resilientdesign](http://www.asla.org/resilientdesign).

**Fluoropon Pure coatings from Valspar** adhere to LEED version 4 certification and the Living Building Challenge's Declare program.

## IN PRINT/ONLINE

**The latest issue of the CTBUH Journal** is available. Preview it at [store.ctbuh.org](http://store.ctbuh.org).



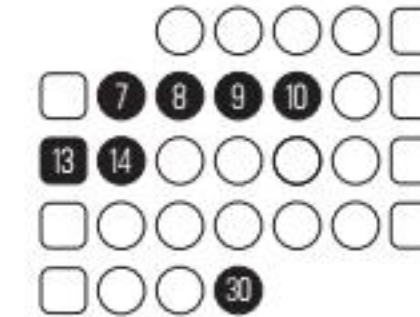
◀ **The 2017 Design Lighting catalogue** by Linea Light Group features a lighting collection designed to support architects' needs.

**A new online learning platform**, Learnvirtual, features hundreds

of On-Demand virtual courses that teach the fundamentals of ARCHICAD taught by experienced coaches.

## coming events

## November 2016



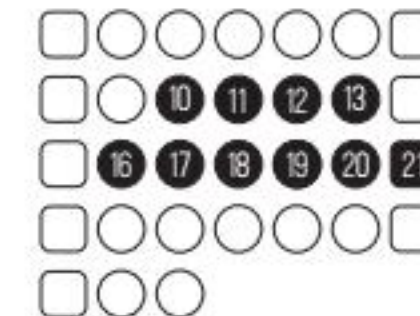
**IFFT (International Furniture Fair Tokyo)/ Interior Lifestyle Living**  
Nov. 7-9  
Tokyo Big Site, Tokyo  
[iff-interiorlifestyleliving.com](http://iff-interiorlifestyleliving.com)

**NeoCon East**  
Nov. 9-10  
Pennsylvania Convention Center, Philadelphia, Pa.  
[www.neoconeast.com](http://www.neoconeast.com)

**BDNY**  
Nov. 13-14  
Jacob K. Javits Center, New York City  
[www.bdney.com](http://www.bdney.com)

**IDEX Canada**  
Nov. 30-Dec. 1  
Metro Toronto Convention Center North Building  
Toronto, Canada  
[www.iidexcanada.com](http://www.iidexcanada.com)

## January 2017



**Heimtextil International Trade Fair for Home and Contract Textiles**  
Jan. 10-13  
Messe Frankfurt Frankfurt, Germany  
[heimtextil.messefrankfurt.com](http://heimtextil.messefrankfurt.com)

**BAU Munchen**  
Jan. 16-21  
Messe München, Munich, Germany  
[bau-muenchen.com](http://bau-muenchen.com)

## UPCOMING ISSUE:

Top 50 Reader reflected product interests and protecting wood from moisture, and inside a San Diego TV studio.

HUNTER DOUGLAS ARCHITECTURAL SAIL SHADES  
AT THE KAUFFMAN CENTER

# ELEVATE

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v. What one well-designed solution does for your whole team's spirits. Diffuse sunlight – and stress – on your next project with custom-engineered Sail Shades by Hunter Douglas Architectural.

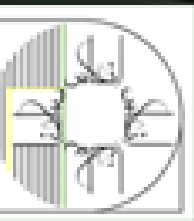
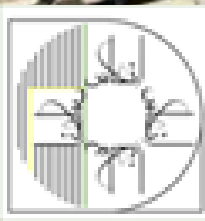
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## Unconventional Architecture Demands Unorthodox Barriers

Building designs that “push the envelope” can also challenge the performance of water-resistive barriers (WRB). Unfortunately, industry codes and standard tests that measure water penetration of such barriers can be of limited help when evaluating performance expectations of unusual wall assemblies.

### Why Standard Tests Fail

The most common water penetration tests for water resistive barriers within ICC-ES AC308, include AATCC 127 and ASTM D779. Neither of them, however, represents typical wall conditions or accounts for fasteners and other penetrations. To assess WRB water penetration resistance, AATCC 127 applies tremendously high hydrostatic pressures on the membrane, while ASTM D779 actually floats the membrane on a pool of water.

ASTM E331 improves on these tests, employing small-scale wall assembly mock-ups and exposing them to conditions that simulate wind-driven rain. Although much more representative of an actual building, ASTM E331 is still flawed, at least according to John Straube, principal at RDH Building Science Inc. An associate professor of building science at the University of Waterloo in Ontario, Canada, Straube says test specimens are almost always blank, featureless walls built by lab technicians in controlled environments. “The wall assembly as described in ASTM E331 doesn’t prescribe the same exterior elements or installation sequence specified for your project, so if you are using this most basic configuration, the results will not be representative of what happens on the actual building,” explains Straube.

Walls with extreme angles or unusual cladding connections will only heighten the differences between the test and real-world performance. To avoid limitations, architects and building engineers should instead view the wall assembly and WRB as an integrated system within the complete structure.



Henry's Blueskin VP160 Self-Adhered Water Resistive Air Barrier Membrane helps designers push the design envelope and challenge the architectural status quo.

### Consider WRB in Context

Before selecting the right WRB and installation methods for the project, architects and engineers need to consider how features like the outermost cladding will impact the wall's other components. Real-world environmental factors should also drive the selection process.

Following are some questions and concerns to address before construction begins:

#### Q: Will the wall be exposed to extreme wind and water pressure?

► Buildings that are very tall, located in a hurricane zone, or have steep wall slopes may require enhanced detailing. Ensuring effective water resistance in such scenarios will require close collaboration with product manufacturers and/or alternative testing approaches.

#### Q: Will the wall feature open joint or baffled cladding?

► If yes, the WRB may face increased exposure to the elements, and likely will require UV resistance or supplemental detailing.

#### Q: Will there be a large number of windows, fasteners and anchors?

► Such components can pose significant risks to water control continuity. Supplemental sealant may need to be applied at key wall areas.

#### Q: Will the wall construction involve prefabricated, modular units?

► Wall components like these that require on-site assembly often demand additional detailing, as well as careful consideration of installation sequencing.

### Wall Innovation Requires Collaboration

As Straube notes, the architect or building designer is responsible for making judgments about what materials to use and how to use them. “However, close collaboration with the WRB manufacturer is extremely important to help the architect select the optimum product and installation details given the specific factors at play in their project,” he says.

This is the goal at the Henry Company—to regularly help architects, engineers and contractors analyze building envelope requirements in order to develop effective WRB solutions for even the most unconventional building designs.

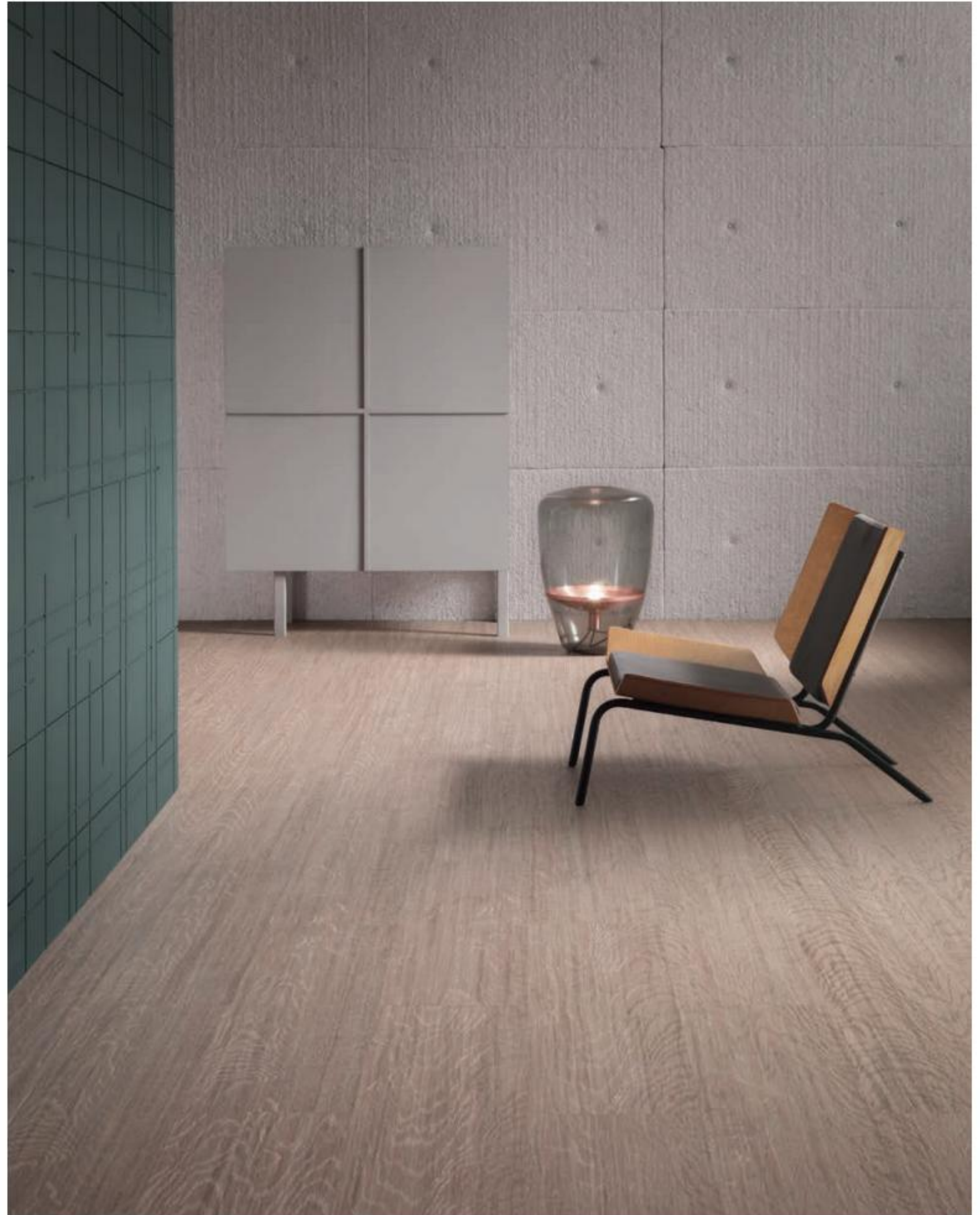
**Architects and engineers need to consider how features like the outermost cladding will impact the wall's other components.**



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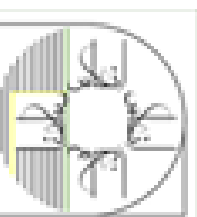
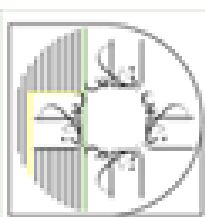
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## Changing the Face of the Façade (Round II)

In early October, *Architectural Products* met with a panel of industry experts from the architectural, research and product manufacturing industries to explore opportunities to advance fenestration efficiency. In last month's feature, "Changing the Face of the Façade," the panel discussed design trends and potential roadblocks to specifying the façade as an integrated system. This month, they cover how—and why—those issues are being addressed, and the immediate impact to architecture and design firms.

**Q:** We've talked about how architects struggle to specify fenestration as a unified system. What is the value of specifying shading systems earlier in the process?



**STEVE SELKOWITZ, Building Technology and Urban Systems Division, Lawrence Berkeley National Laboratory:**

Large economic savings related to space use stand at the top of the list. Operable shading systems that are integrated into the building design and reliably linked to lighting and HVAC systems will save operating energy but can also offset cost in HVAC system sizing. Enhancing thermal and visual comfort next to a floor-to-ceiling window is a common technical challenge for architects. Experienced interior designers will often solve this issue by moving the first row of workstations one to five feet back from the window to avoid the harshest glare and thermal discomfort from sunlight. While it is a valid solution at face value, the economic consequences are enormous if measured appropriately. Sacrificing 1 to 5 sq. ft. of floor space per linear foot of façade represents a space penalty of about \$2000 due to the unused, but still expensive floor space in a downtown urban building. These funds alone could pay for the highest-quality automated shading system to control glare and comfort, recapturing the area as useful space if it was considered at the right time in the design process.



**COLIN BLACKFORD, Innovation Manager, MERMET USA:**

Maintaining the integrity of the exterior building appearance is an often-overlooked consideration. Specifying the appropriate type of exterior-facing shade ensures alignment with an architect's design intent. Dark shades are less visible from the exterior since the reflected properties of clear glass are dark due to the cavity of the space behind it. Conversely, light-colored shades behind clear glass can create a 'snaggletooth' look that is visually distracting from the exterior when they are lowered to different levels during the day. Performance impacts are equally important. As much as you can reduce visible light and/or solar gain with glazing, adding solar shading enables a building envelope to perform that much better while offering users the ability to control their environment. The ability to weigh these criteria prior to specifying fenestration products will be a game changer.

**Q:** How will new knowledge about the effectiveness of integrated, dynamic fenestration systems affect architects on a day-to-day basis?



**DAVID OH, Interiors & Science/Technology Team Leader, Little Architectural:**

Dynamic and integrated systems create possibilities to scale up the amount of glazing to meet client requests, and challenge the notion that fenestration is an energetic 'weak link' in the envelope. Architects are already using a rating and labeling program for commercial and residential window products, commissioned by the National Fenestration Ratings Council (NFRC). With the Attachments Energy Rating Council (AERC) program for shading attachments, architects will be empowered to implement best practice designs for system integration rather than conforming to minimal code standards.



**STEVE SELKOWITZ, Building Technology and Urban Systems Division, Lawrence Berkeley National Laboratory:**

Constant updates and modifications to nationwide codes, standards and even voluntary programs like Energy Star are inevitable. Layer on local and state programs such as California's mandate for new buildings to be net zero energy by 2030, and its goal to reduce carbon emissions 40% from 1990 levels by 2030, and 80% by 2050, and you can see the value of designing ahead of code. Dynamic shading is a smart, flexible and cost-effective way to stay ahead of those changes and increase energy cost savings through lower usage for lighting, heating and cooling. They also provide the flexibility to adapt to changing occupancy needs and to meet the increasing attention paid by owners and building rating systems on occupant comfort and amenity.



**STACY LAMBRIGHT, Energy Efficiency Product Manager, Hunter Douglas:**

Retrofits to enhance energy efficiency are on the rise. Glazing upgrades are a core area of focus. However, replacing windows or glazing is expensive. Building owners won't need to do that once architects can accurately compare the energy performance of attachments. Keeping in mind all the applicable external variables for a building, an architect will be able to determine what combination of shading and glazing is going to work best. With accurate and comparable measurements of the performance properties of shades and how they work hand-in-hand with glazing and framing, retrofits will have an excellent, cost-efficient means for solar control, while new construction projects will exceed code. Integrated solutions also allow architects to enhance building occupant comfort, and therefore, client satisfaction. Energy is important, but productive and happy workers are what the customer will likely care about most.



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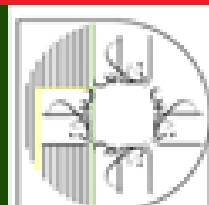
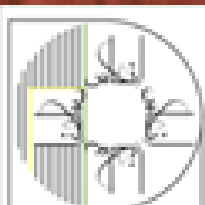
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## product developments

### material advances + product breakthroughs

# Noteworthy

The **American Institute of Architects (AIA)** reported the August ABI score was 49.7, down from the mark of 51.5 in the previous month. The new projects inquiry index was 61.8, up sharply from a reading of 57.5 the previous month.

**Delos** and **HOK** have formed a partnership to help accelerate WELL Building Standard's mission to integrate health and wellness into the built environment.

**DLR Group** and **Westlake Reed Leskosky** have merged to create a global integrated architecture, engineering interiors, planning, building optimization and specialty consulting services firm.

**Skanska USA** has been selected by the Georgia Institute of Technology (Georgia Tech) to build the Institutes Living Building Challenge (LBC) project.

Updated **NYC Energy Codes** mandate a blower door test among other energy improvements.

**Hansgrohe** is celebrating 115 years in business.

Matt Peterson is now President and Chief Operating Officer of **Fujitsu General America**.

**Bretford** has shifted its manufacturing focus to furniture that supports technology devices for integration in the classroom and technology products for the library of the future.

The **Institution of Chemical Engineers (IChemE)** has named Dow Corning 3363 Insulating Glass Sealant as a finalist in the 2016 IChemE Global Awards in the "Energy" category.

**Sherwin-Williams** announced its partnership with the Anguleris Technologies Building Information Modeling (BIM) platform, **BIMsmith**.

**Porous Pave** has surpassed 7.5 million pounds of recycled rubber used in manufacturing its permeable paving material.

**Lightswitch Architectural's** Illumination at The Morton Arboretum in Lombard, Ill. has won a CODAaward of Merit in the Landscape category.

**Icynene** has been awarded Greenguard Gold certification by UL Environment for its high-performance, ultra-low-VOC open-cell spray foam insulation – Icynene Classic Max.



## ACOUSTIC COMFORT:

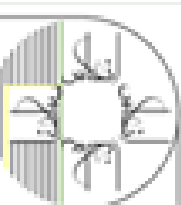
# Cone of Silence

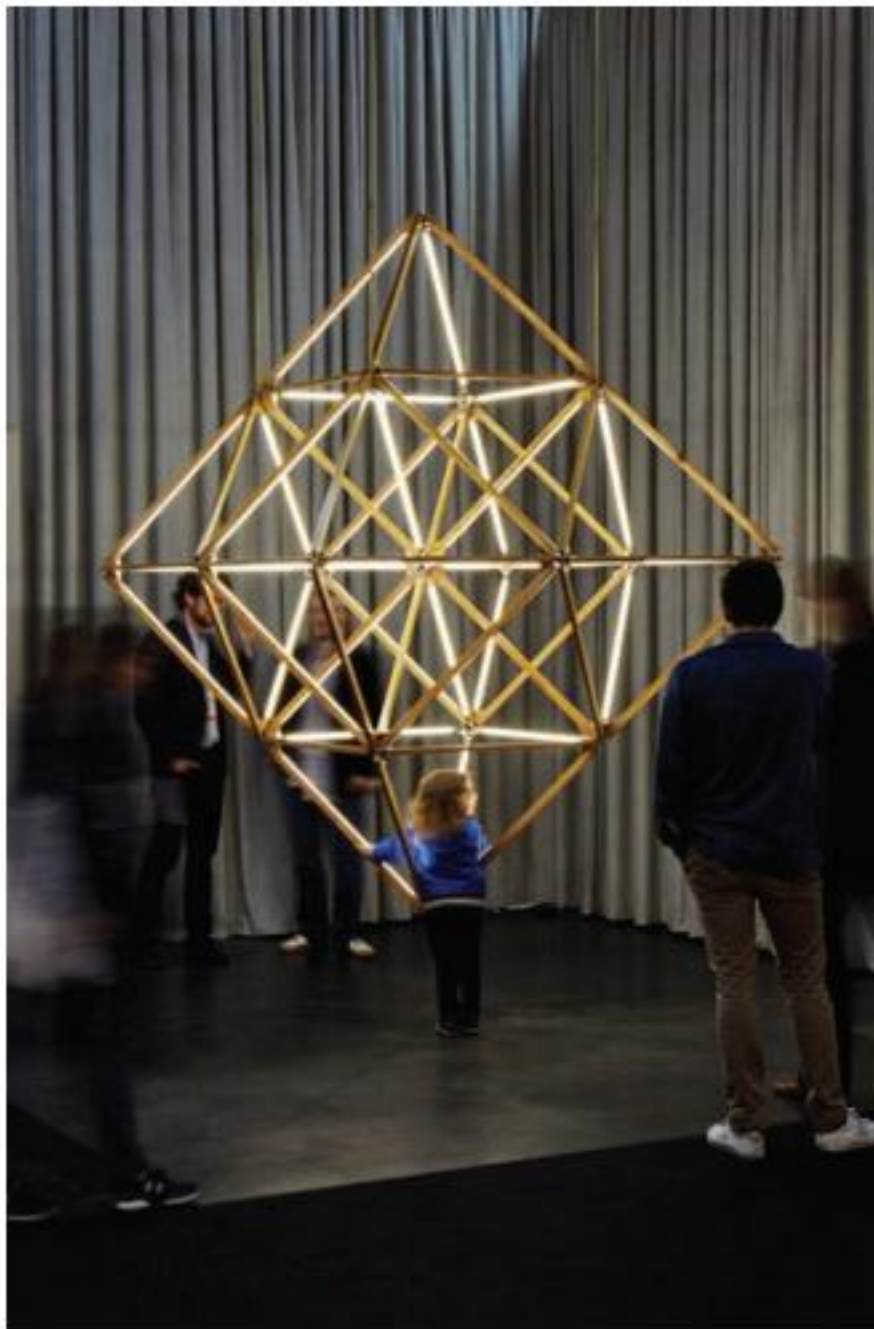
A freestanding office component from **Koleksiyon** creates a large teepee-like office to house a person, work surface and seating. The tall, conical structure affords open office plans dedicated private offices with acoustic and visual privacy. Dubbed Oblivion, the acoustic office structures may be used as one-on-one meeting space, as a private phone booth, or as a silent space for heads-down tasks. Oblivion pods include wiring chases, lighting and storage. The exteriors can be ordered in any color, fabric or customer's own material. Visit [www.koleksiyoninternational.com](http://www.koleksiyoninternational.com) or **Circle 430**



► Wiring can run vertically or horizontally through Oblivion's aluminum extruded beams. Lighting solutions, such as LED strips, can be planned in the vertical beams.

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**LIGHTING:**

## Stick Man Meets Stickbulb

**Stickbulb** is a sleek, wooden beam with an LED light designed by RUX, a multi-disciplinary design studio based in Long Island City. The firm's 9-ft. X Diamond 3/60—a limited edition chandelier—is the epitome of modular systems and sustainable manufacturing. Almost any component, from small table lamps to room-filling installations can be made of Stickbulb wood, which comes from locally demolished buildings and sustainably managed forests. Visit [stickbulb.com](http://stickbulb.com) or **Circle 429**



**DETAILED DESIGN**

The 9-ft. X Diamond 3/60 is made from 60 Stickbulbs (made of reclaimed Southern Yellow Pine) held together by 36 polished brass joints. Stickbulbs may be individually powered or hard wired.



**WATER CONSERVATION:**

## Maximum Mist

If you have ever been in trouble for manipulating a water faucet's spray stream, you might have just had a really good idea: **Altered:Nozzle** takes that concept, and presents it as a neater, more effective way to achieve washing and rinsing while conserving up to 98% of sink water. The economic and simple-to-install atomizer screws in to an existing standard faucet fixture—and voilà, users will experience immediate water savings. A toggle switch included on the nozzle opens the spout to a standard saver rate, ensuring that those striving to conserve water may still fill a teapot in a timely manner. Visit [www.alteredcompany.com](http://www.alteredcompany.com) or **Circle 428**



**ATOMIZED H2O**

The Altered:Nozzle, when set to the mist mode, uses 0.18 L (0.05 U.S. gallons) of water per minute. Although only about 2% the flow rate of an unmodified tap, the increased surface area created by the high-speed mist reportedly allows it to perform tasks such as washing and rinsing effectively.

**BIO COMPOSITES**

## The Green Carpet

Italian manufacturer of artistic mannequins, **Bonaveri**, unveiled the first biodegradable mannequin during London Fashion Week. The new mannequin body is made of B Plast, a bio-based polymer consisting of 72% sugarcane derivative and finished with B Paint: made solely of renewable, organic substances. As it biodegrades, the B Plast mannequin releases only water and an equivalent amount of CO<sub>2</sub> to what the sugarcane absorbed in its growth phase. Visit [www.bonaveri.com](http://www.bonaveri.com) or **Circle 427**



Arboblend, by German Tecnar, was constructed into a parametric pavilion at Stuttgart University's Institute of Building Structures and Structural Design.

**FASHION TO FABRICATION**

Biocomposites and bioplastics are a broad category of rapidly developing renewable alternatives to petroleum-based products. They can be used as decorative or structural components in everything from furniture to construction.

LIGHTING:

## Light as Material

Philips' Luminous Patterns integrate light into architecture in a new way. Delicately illuminated surfaces of light in customizable architectural wall panel systems create a selection of signature experiences including innovative optical effects, geometric patterns, custom finishes, and graphic overlays. "We're surrounded by these effects in nature, but it is largely missing from the buildings that we live in," says Brad Koerner, Luminous

Luminous Patterns makes integrating light into surfaces the latest method of re-imagining interiors with original artworks crafted of pattern and light.

Patterns Venture Manager. These luminous effects are always desired in architectural projects, but quickly become costly, time-consuming science projects, says Kenneth van Kogelengberg, luminous patterns designer. "So what we've created is a custom-built-to-order-solution that allows architects to easily



Prototypes installed in the Philips' showroom in the High Tech Campus, Philips Lighting Headquarters, Eindhoven, Netherlands. The shoe wall is called the "Linear Sparkle."

### CRAFTED LIGHT

Luminous Patterns are powerful retail medium. The lighting integrated into an athletic shoe store has been leveraged to create a dramatic sense of motion. The apertures make shoes appear as if they are running recumbently through the display.



The "Brilliant Graphic" option creates a shimmering crystalline glow that appears to move.



"Round Sparkle" is employed in this hospitality setting. The spheres replicate the ambiance of candlelight.



The "3D Graphic" offering helps transform surfaces into works of art. The 3D graphics are laser cut and bent into a variety of shapes, creating patterns of light and shadow and depth.

integrate patterns of light into their projects." The panels' patterns and colors themselves are customizable, including the choice to select from an array of lighting affects. Sparkling lights, radiant lines and 2-D and 3-D cutouts or light patterns with animations enhance the feeling of dynamic light.

"It's for architects and interior designers to create new paradigms in architectural lighting and to love using light in the spaces they craft," says Koerner. Jessica Neilsen, surface pattern designer, says she really enjoyed viewing light as a material. "Animation makes them even more interesting, enhancing the atmosphere and the feeling you want to convey. It adds an extra dimension to the patterns and makes them come to life." Visit [luminouspatterns.com](http://luminouspatterns.com) or **Circle 426**



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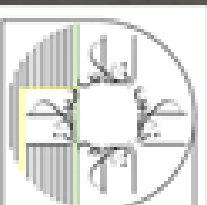
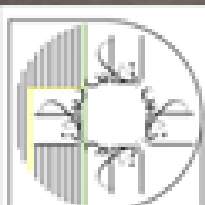
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## Smile Pavilion a Nod to Hardwood

London Design Festival's Landmark Project 'Smile' was designed to transform the way the industry views timber as a way to create space, form and structure.

What does a city that has an eye need? A smile, of course. Designed by Alison Brooks Architects and engineered by Arup as a Landmark Project for the London Design Festival 2016, The Smile is set to transform the way the A/E/C industry views timber as a way to create space, form and structure.

The urban pavilion displayed on the quad of the Chelsea College of Art and Design is made using some of the largest ever panels of cross-laminated Tulipwood, and acts a large-scale proof-of-concept of the potential of American hardwood cross-laminated timber (CLT).

The pavilion is based on a 50-m radius and it is 34-m long. "We designed the pavilion that takes the form of an arc; it's a really athletic structure," says its designer, Alison Brooks. "It's pushing boundaries in the use of CLT and going to break new ground in terms of what cross-laminated timber can do."

Züblin Timber, Germany, manufactured "end-less boards" for the two-way cantilevered structure. Using finger-jointing, gluing them cross-wise and putting them into a vacuum press with 800 kg/sq. m of force, the Bavarian company is the first to achieve CLT boards 40-m long x 4.4-m wide.

They are then machined to a 1-mm tolerance on an 8-axis CNC machine, a fabricating process that produces construction materials that once on the job site will fit together seamlessly. Assembled with 300 to 400-mm- long, extra-strength screws fixing the tulipwood panels together is an economic installation that also works in concert with the hardwood to support the cantilevered structure where it meets the ground, preventing the ends from snapping off; in fact, the Smile pavilion is designed to withstand up to 10 tons of force from the wind in addition to the live loads from either side of the cantilever.

The holes bored into the faces of the pavilion not only serve as portals for ventilation and light, they represent windows, and give visual insight as to what is happening to the wood as a structural element, illustrating that where there is the least amount of stress and the greatest opportunity to impart transparency in the design of the unique structure. "No one has ever tried to do a hardwood CLT panel of this size and scale before," notes Andrew Lawrence, Assoc. Director of Arup. "And The Smile is by far the most complex project ever built in CLT so working with Alison in designing this we found an incredibly exciting process."

"It's really thrilling to see the public interact with the finished structure, but more importantly is using the data, the experience and the knowledge gained on this project to feed into the commercial use of hardwood CLT in the future," says David Venables, European Director of AHEC (American Hardwood Export Commission).



London Design Festival: The Smile

### NO CROOKED SMILES

Although it appears as though the Smile pavilion could rock like a cradle, it is a fixed design. The double cantilever leaves the highest amount of stress at the point it touches the foundation where the door is cut out. It is engineered by Arup to withstand 10 tons of force from the wind in addition to structural and live loads on either side of the cantilever.



**Architect Alison Brooks' landmark project could be described as a UFO: a 34-m long, 3-m high, upside down arc poised on the urban horizon. Her project is also a spectacular urban pavilion that takes the shape of a smile.**



### THE SMILE

Arup has studied the construction of tall CLT towers; however, the London Smile project presented unique engineering challenges, including the use of a new CLT product—40-m long x 4.4-m wide boards manufactured by Züblin Timber.



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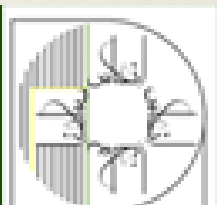
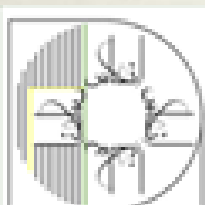
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## Resilience: BIG Rigs Housing Solution

Urban Riggers uses stacked, floating shipping containers to demonstrate an economical solution to the urgent need for affordable student housing in the heart of the dense, urban hub of Copenhagen.

Urban Riggers is making a splash—literally. A floating hub of shipping containers refitted as student housing for the University of Denmark was met with critical acclaim last month in Copenhagen, and is now the most de rigueur and affordable student accommodations in the city.

“My oldest son needed a place to live when he was going to university,” Kim Loudrup, cofounder of the Copenhagen housing startup Urban Rigger told *World Architecture News*. “When we went online to see the availability for student housing in Copenhagen, it dawned on us that it was a nightmare.”

Architect Bjarke Ingels of BIG and partner Kim Loudrup, CEO of Urban Riggers have become BMOC (big men on campus) for conceiving the prototype comprised of nine shipping containers stacked in a circular form. Each three-tiered apartment pod offers 15 studios with private bed, bath and kitchen. The interior void creates a courtyard

or winter garden, a gathering space to be enjoyed collectively by the neighbors.

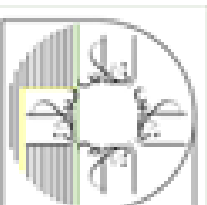
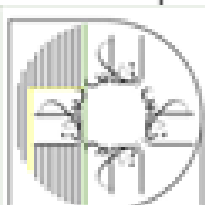
It is reported that the weather-tight construction includes photovoltaic cells for power and an aerogel insulation developed by NASA. Ingels’ unconventional thinking he’s dubbed “hedonistic sustainability,” experiments with the premise of disposing of an over-abundant blight of shipping containers by transforming them into floating dorms. Urban Riggers not only solves a student-housing crisis, it aims to spiff up an underutilized harbor that has suffered industrial decline in recent years. The solution is a strategy transferrable to any seaside urban hub facing an impending housing crisis, while simultaneously addressing resilience to rising sea levels and pollution. **Circle 425**

**Floating housing is a solution to overcrowding in university cities. It may also be applicable to port cities with underutilized harbors and waterways worldwide.**



### SUSTAINABLE PRODUCTS FOR LOW-ENERGY LIVING

Upcycling over-abundant shipping containers is only one of Urban Riggers’ sustainable features. The housing uses Hanwha solar panels, hydro-source Danfoss heat pumps and low-energy pumps from Danfoss to minimize its carbon footprint.





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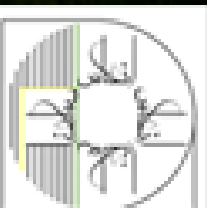
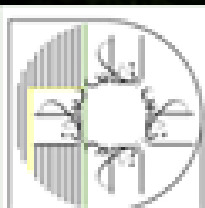
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## Custom Creations: One-Off Wallcoverings

Gensler Philadelphia designed its workplace based off a site-specific plan, which included dividing up the office into several neighborhoods connected to a central square.

Custom wallcoverings can be unique and they don't have to cost a fortune. When Gensler Philadelphia (GPHL) began a workplace design for its newest office in Philadelphia, it devised a site-specific plan imitating the nuances of the city by dividing up the office into several neighborhoods connected to a central square.

This required a materials and finishes plan peppered with an aesthetic unique to Philadelphia that incorporated creative cues to wayfinding that formed a unified connectivity of all the spaces throughout the office.

**From paintings to murals to a hand-sketched work of art, many of MDC Studio's wallcoverings look like original artwork hand sketched directly onto the wall—or ceiling.**

Gensler architect Shannon Benton worked with principals from the Baltimore office to devise specialty features layered across the area, including custom wallcoverings. The team wanted its office space to reflect pride of local craft, and chose to integrate that feature throughout via an original mural that wraps around the office, from the corner of the elevator bank, to the entry and through three private offices visible from the corridor.

Benton and the team gravitated towards artist Rachel Birch's style for an original sketch of the city from river to river; however, the original was at greeting card-sized scale. Birch, who is trained as an architect, redrew the work at a larger scale in pencil on mylar. The design team was charmed by its collaboration with Birch. The final drawing was then scanned and GPHL worked with MDC Studios to transform Birch's original into a larger-than-life wallcovering.

The graphics department mocked it up on several different finishes and at different sheen levels, recalls Benton. Once the team agreed on the canvas finish, it was printed in 30-in. wide strips. "It looks like it was just sketched right onto the wall," says Benton.

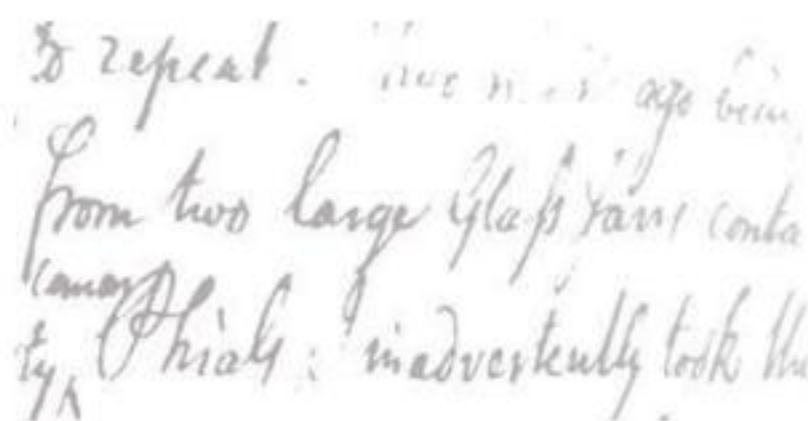
The team used the concept to replicate another historically significant document as custom wallcoverings. A handwritten letter from Ben Franklin about the creative spirit continues to inspire and inform the GPHL's work from its conference room walls.

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### CALLIGRAPHY

A handwritten letter from Ben Franklin about the creative spirit inspires and informs GPHL's work on its conference room walls.



### ABUNDANT ART

This digitally printed, super-scaled art on a medium canvas extends the luxurious feel and establishes a dramatic tone for guests upon entering the hotel lobby and checking in.



### IMAGE SELECTION

Gensler Philadelphia created its own original artwork; however, designers may select from an enormous bank of images that may be scaled and finished according to project parameters.



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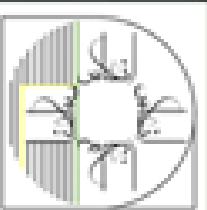
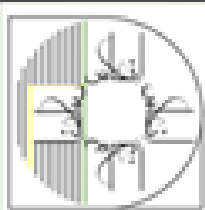


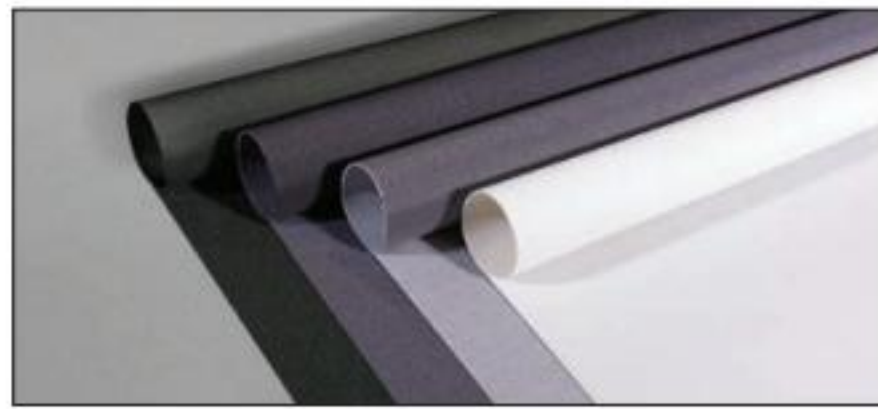
Williston Area Recreation Center – Williston, North Dakota

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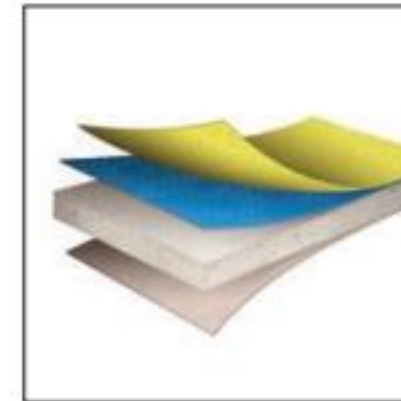


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by Jim Crockett, Editorial Director



## Greenbuild Reflects a Maturing Products Base

AP's editor scoured the aisles of Greenbuild to bring readers the latest and most interesting products reflecting trends in sustainable architecture.

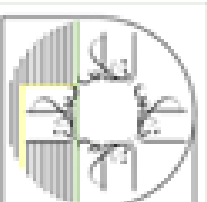
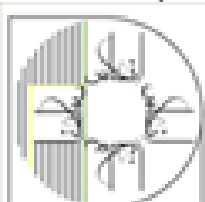
It's probably fair to say what finds you on an expo floor reflects what personally interests you, which may explain the products above. That said, I believe the aforementioned represent a maturation of products and technology that reflect the matters of greatest concern to those focused on a more sustainable A/E/C world—and to this observer's eye they are water, envelope performance and daylighting, with a subset of all these categories being the materiality of products. In fact, the latter might represent an evolutionary aspect to the show—perhaps even a “scion” of Greenbuild as the time may have come to separate the focus of energy/performance and product materiality/health. I spent a lot of time talking with the folks from the WELL Building Institute about their

movement, which I believe is a real thing—and they certainly drew a lot of attention to their booth. And while it featured products both centered on performance and health, the C2C-product-laden KB Home ProjeKt had lines around it all day, so the subject is a draw, or maybe it's just that people like to kick the tires on real construction, which might also explain the crowds around Inpro's Tiny Home—by the way, the Bark House wallcoverings were pretty cool, and there is a shingles version as well. That said, it seems to me that show visitors might be better served not having to divide their focus. In fact, I felt kind of bad for the folks in the “Net Zero Zone” on the opposite end of the hall, which was fairly deserted. Perhaps it was due to the fact that the exhibits there were more

mechanical in nature. For example, one such exhibitor was Armstrong Pumps, who displayed pretty sophisticated technology to better manage energy and water. In speaking to these folks, however, I mentioned they may be missing the mark a bit, in that perhaps the better marketing message might have been “Got Geothermal?”

I think the reThink Wood folks have it right—they've got a casual, but cool setting that draws lots of people in, even if the discussion is going to be on cross-laminated timber. I had lots of other great conversations with folks at the show, including GreenSeal, and the sustainability contingent from Singapore, who have a lot of insights worth looking into. Alas, that must be a story for another day.

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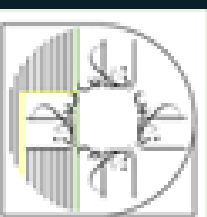
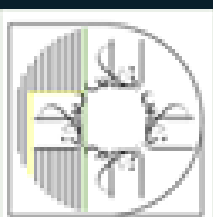
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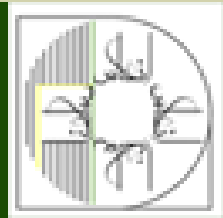
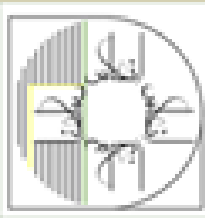




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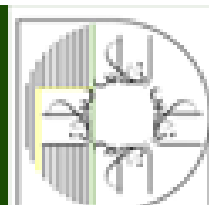
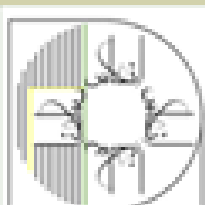
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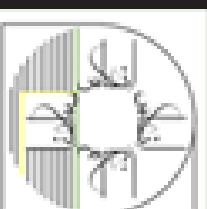
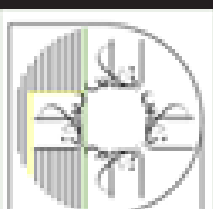
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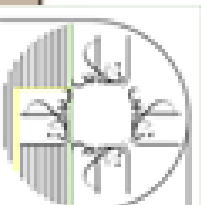
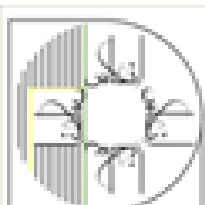
by Chuck Ross, contributing writer

## solar aspirations? ready your roof

Whether a true believer or not, the facts support the incorporation of solar is on the rise. But it's not such a simple matter, even if one leaves the electrical side to the engineers—important roofing decisions must be carefully considered, not the least of which is whether it will be a flat-ballasted or rack-mounted system. Lifetime and maintenance are also critical criteria that must be factored.



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Rooftop photovoltaic (PV) arrays are becoming increasingly common additions for commercial buildings, and their use is likely to continue to grow as the move toward net-zero energy design continues forward. While the design of these electrical systems is certainly outside the scope of most architectural contracts, ensuring a building is ready for these onsite electricity generators is well within the scope of an architect's responsibilities.

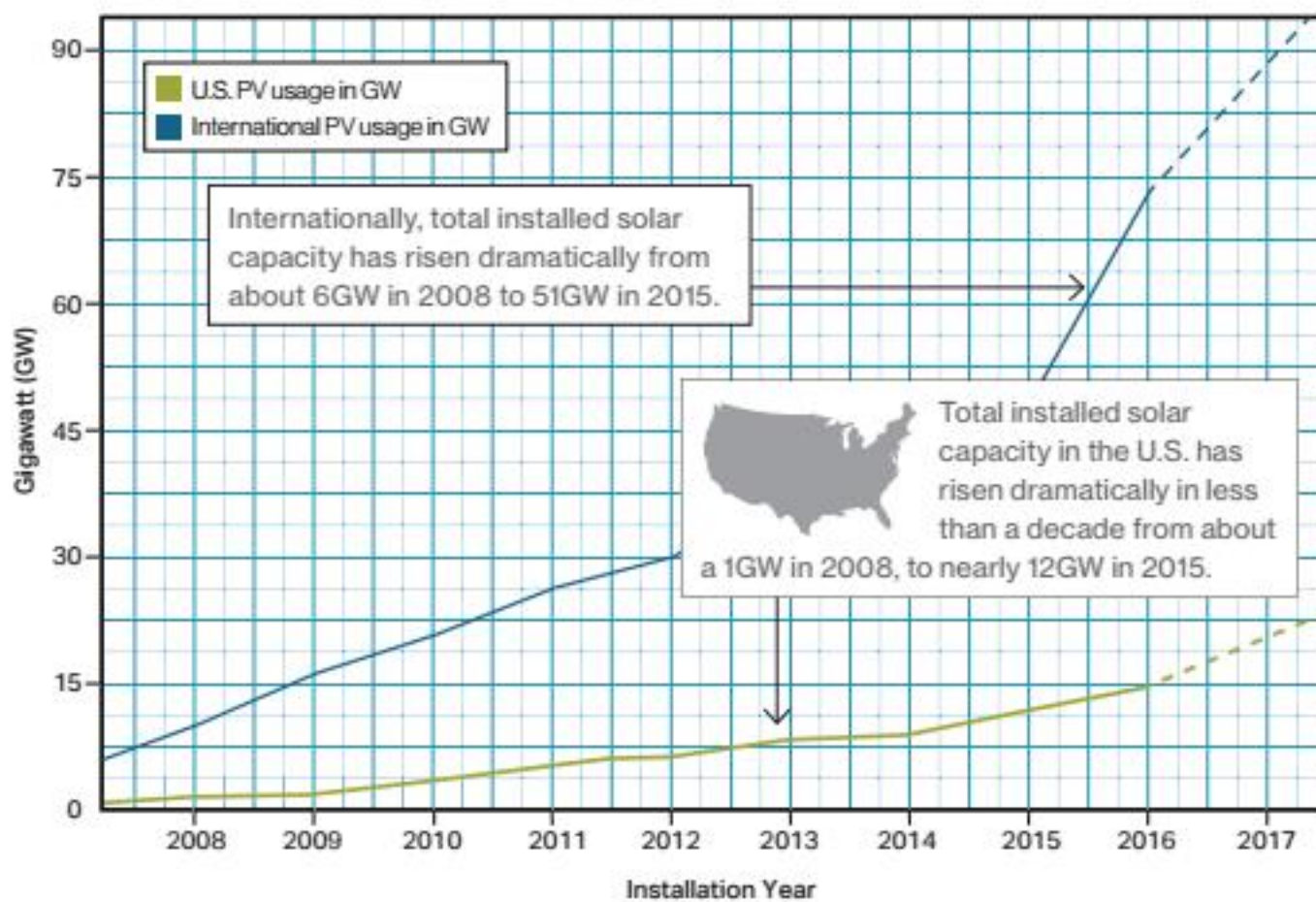
Though they have lagged in the residential and utility-scale market the past several years, non-residential PV installations have been strong in

2016. Second-quarter growth figures released in September by GTM Research show 50% growth, year-over-year, in this category, which incorporates commercial, industrial, non-profit, government and other such participants.

California—where all new commercial construction in the state is required to be zero net energy by 2030, according to the latest revisions to the Title 24 energy code—is driving much of the growth in this segment. In fact, the Golden State is responsible for half of all installations during 2016's second quarter.

That said, designing a building to support a rooftop array can present a learning curve for those who might be unfamiliar with PV systems. Whether a client is looking to install such a system as part of the initial construction process, or simply be prepared for a possible future installation, a number of design and specification issues will need to be addressed. Some of these might be obvious, such as ensuring the basic roof structure can support the added weight. But others, such as the implications for membrane selection and attention to flashing details, might be less so.

### Global and Domestic PV Capacity



Average installed cost in the U.S. has dropped from nearly \$9/watt to about \$4/watt according to *Renewable Energy World Magazine*. Internationally, according to GTM, globally, the PV market is set to grow 43% in 2016 to 73GW installed. In five years, that's projected to grow to 105GW. In the U.S., in 2016, GTM noted total solar installed grew to 27.5GW as of Q3.

**Though they have lagged the residential and utility-scale market the past several years, non-residential PV installations have had a strong 2016. Second-quarter growth figures released in September by GTM Research show 50% growth.**

- ▶ According to GTM, the U.S. installed 2051 megawatts (MW) of solar PV in Q2 2016, a 43% increase over Q2 2015.
- ▶ In the first half of 2016, solar accounted for 26% of all new electric generating capacity brought on-line in U.S.
- ▶ Residential PV, with 650 MW installed, grew only slightly over Q1 2016, but had its largest quarter ever while growing 29% year over year.
- ▶ California accounted for 42% of rooftop PV installations in Q2—its lowest share since Q4 2012.
- ▶ While only seven states added more than 25 MW of rooftop PV in 1H2015, 11 states added more than 25 MW in 1H2016.
- ▶ More than a gigawatt (GW) of utility-scale solar was installed for the third consecutive quarter as that segment continues to build out more than 7.8 GW of additional projects expected to come online in 2016.
- ▶ Solar prices continue to drop across market segments. Collectively, solar prices are 18% lower than they were in 2015 and 63% lower than they were 5 years ago.
- ▶ GTM Research forecasts that 13.9 GW of new PV installations will come on-line in 2016, up 85% over 2015. Utility PV is expected to drive the majority of demand, accounting for over 70% of new capacity.



▶ Solar production is expected to exceed the power demands of the RMI HQ plus six electrical vehicles.



▶ A 30kW battery storage system reduces peak energy demand (<50kW), which keeps RMI in the small-commercial class for power rate charges.



## Finances First

Making finances work is a critical first step in PV installation, as these systems can represent a significant investment for the building owner. While some clients may want to postpone the equipment investment with a roof that's simply PV-ready, it is important they know the potential financial implications of such a decision. PV systems have longer lifespans than roof membranes, which could lead to disassembly and re-assembly expenses down the road that could bust the project's overall bottom line.

"The average life expectancy of a solar installation is reported to be 25 years, and not all low-slope

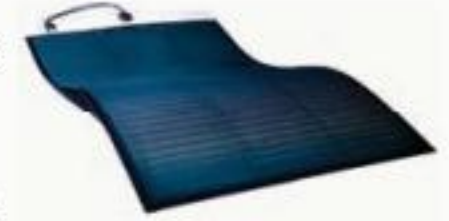
roofs are going to have that service life," says Jason Wilen, AIA, director of technical services for the National Roofing Contractors Assn. (NRCA).

Granted, not all commercial owners are thinking 15 to 20 years down the road, but such planning is critical when a PV system is being considered, given the added expense that could be involved in removing and reconnecting an array if a future replacement is required. "The best-case scenario is to put your PV system in at the same time you're putting the roof down," says Wilen.

### SIDEBAR

## The Return of Thin Film

A technology that once dominated the rooftop photovoltaic industry reentered the market in September, with the re-launch of thin-film products from MiaSolé. The company, a former leader in what had been a very vibrant market, has introduced a new, significantly more efficient flexible photovoltaic (PV) film that provides a new option for roof structures that might not be able to support a traditional racked system.



As recently as four or five years ago, rooftop photovoltaic arrays were predominantly based on thin-film technology. At 7% efficiency, these offerings produced less electricity than 17%-efficient glass-laminated silicon panels, but these flexible sheet products were also less expensive and could be installed easily with a peel-and-stick adhesive backing. Then silicon-panel prices dropped significantly, and thin-film manufacturers were driven out of the market.

MiaSolé was purchased by the Chinese company Hanergy in 2013, and has been focused on improving their film's output since then. The result, with an efficiency rating of 17%, was unveiled at the Solar Power International show in Las Vegas. Though it remains more expensive than silicone-based panels, the film's significantly improved efficiency makes it an option for applications where such panels won't work.

"We are not going directly head-to-head with a rigid panel," says Anil Vijayendran, the company's vice president of product sales and marketing. "We offer solutions where a rigid panel does not work. It's a niche, but that niche is pretty wide."

### MECHANICAL ATTACHMENT



The Rocky Mountain Institute's Innovation Center in Basalt, Colo., a net-zero energy building, is powered by a roof-mounted 83-kW PV system that will produce around 117,000 kWh annually. The system made up of SunPower X21-335 watt solar-electric modules, delivering a maximum efficiency of 21.5%, 44% more power than conventional panels. The building's projected annual energy demand is 77,000 kWh/year.

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▶ Rocky Mountain Institute's Innovation Center in Basalt, Colo. is a nonprofit research and educational foundation aiming to foster efficient and sustainable use of resources.



### THIN IS BACK IN

Thin-film PV, which offers installation advantages, has also made strides in efficiency on par with its silicon panel counterparts. It is, however, more expensive than its PV cousin.

## Attachment Issues

Regardless of whether an array is to be installed when the building is constructed or at some later time, architects will want to know whether the system is to be ballasted or mechanically attached to the roof deck. Each approach has benefits and drawbacks, with important implications for how roofs are designed and roof materials specified.

The NRCA favors mechanically attached rack system (as seen as on the Rocky Mountain Institute Innovation Center in the case study on the preceding page). In such a system, PV panels are installed on a racking system which uses screws that pass

through the roof membrane to secure it to the roof deck below. One of the advantages of such a system is that the PV panels can be better positioned to catch the sun.

Alternatively, ballasted systems, which are simply weighted down with concrete blocks, require no roof penetrations, and to date, far outnumber mechanically attached PV designs. That said NRCA notes ballasted systems have issues too. Such systems, they note, can shift over the surface of a roof membrane, which could cause abrasions that shorten the membrane's life.

Manufacturers are less directive, and offer options to address the needs of ballasted approaches. "We haven't really taken a stance [on which mounting system is better], because the majority are ballasted systems," says Mike Sexton, national technical manager for single-ply roofing with Firestone Building Products.

He notes his company has a variety of recommendations, and more often than not, it ends up being synonymous with its Platinum-range system which addresses many of these issues.



**PRODUCTS SPECIFIED:**

Thinfilm PV panels adhered to an overlay of 60 mil Firestone UltraPly TPO membrane.

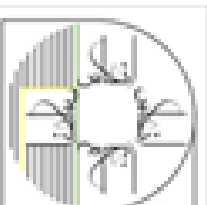
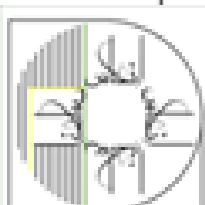


**SPEEDY INSTALL**

The PV array at Sketchers distribution center in Riverside, Calif., is a flat-mounted, thin-film application. The array sits on a Firestone UltraPly TPO roof system. "TPO was a better choice for a PV roof, particularly from a reflectivity and roof temperature standpoint," says John Fotopoulos, a sales rep for the manufacturer. Roof access for tenant improvements is also much easier with TPO membrane, says Fotopoulos. The PV is an 808,000-watt Firestone Thinfilm Photovoltaic System, covering 220,000 sq. ft. of roof. With a crew of 15, the roofing contractor CRS was able to install up to 65,000 sq. ft./day—almost double their original estimate.



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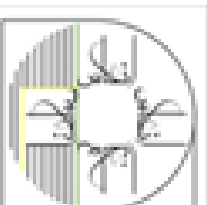
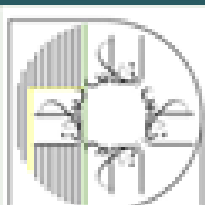
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## Weighty Decisions

The selection of racking method also has implications for the roof's structural design, with ballasted systems weighing more than those that are mechanically attached. Both approaches, however, do come with their own load considerations. The NRCA recommends architects call in a structural engineer to properly understand what these requirements might be. Beyond the simple weight of the racks, weight calculations also need to incorporate such factors as possible snow and wind loads.

Wilén suggests architects also consider those loads when specifying rooftop insulation. "Make

sure the insulation board is a high compressive strength, including a thermal barrier immediately under the membrane," he says.

Insulation is key, he explains, as designers will need to account for increased roof surface temperatures solar panels will bring to the table. "Heat and UV exposure are two things that are going to potentially reduce the service life of a roof membrane," says Wilén.

Another service life issue to be factored is increased foot traffic necessary in the maintenance of a PV system. Among other activities, PV panels

panels will need to be cleaned and cleared of leaves and other debris—possibly snow—to maintain maximum productivity. Additionally, solar panels might require wiring repairs or replacement.

Added traffic has implications for those specifying roof membranes, insulation boards and cover boards, as products offering higher compressive strength might be required. Also, building and electrical codes have provisions regarding pathways and clearance from roof edges to provide safety.

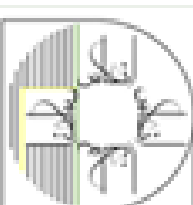
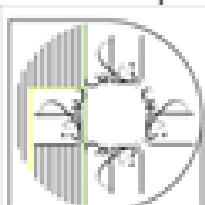
**When you add PV to a rooftop, you also add foot traffic. PV systems require periodic maintenance—among other activities, panels will need to be cleaned and cleared of leaves and other debris to maintain productivity.**



### TRAFFIC JAM

A rack-mounted PV array from SolarDock was used on furniture maker KI's facility in Green Bay, Wisc. Foot traffic is a key consideration and such systems require periodic maintenance, which could be as simple a clearing snow or debris. An issue to keep in mind is that panels might eventually require wiring repairs or replacement, meaning roofing materials will need to be of a higher compressive strength to stand up to this unusual activity.

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responsive hands-free technology.

Delta® Proximity® Sensing Technology activates water flow when hands come within four inches of the faucet, and stops once they are removed. Users will appreciate the contemporary design and responsiveness, while you enjoy the water savings and easy maintenance. Learn more about our innovative technologies, styles and support at [DeltaFaucet.com/Proximity](http://DeltaFaucet.com/Proximity)

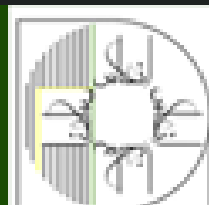
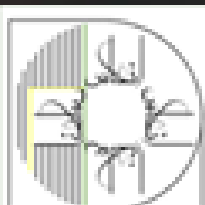


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## Meet Your Roof's Maker

This brief primer can only touch on some of the issues roof system designers need to address when a rooftop PV system is part of the plan. Other concerns include the added heat PV systems create for the roofs they're covering, and the need to ensure attachment systems allow sufficient drainage. Wilen and Sexton both urge designers to consult with their roof membrane's manufacturer before final specifications are written, because systems likely will perform better, and owners can rest assured that their warranty will remain in force.

"It's always a good idea to work with the roofing manufacturer," Sexton says. "We have experience working with the solar industry, safeguarding both the solar investment as well as the roofing."

### PAU HANA TIME AT MAUI BREWING

In Hawaii, Pau Hana means "all done with work!" What better way to spend time after a hard day on the job than by enjoying a cold pint at Maui Brewing Co.'s new taproom in Kihei, Hawaii. As part of the project, the brewery contracted Zero Base to integrate and install a 200kW solar array, including two solar awnings and a solar canopy that utilized Lumos' LSX frameless solar modules. The custom canopies are a beautiful addition to the new building and is a great way for Maui Brewing Co. to express their dedication to the environment.



### PRODUCT SPECS

Modules: 72 LSX Solar  
Racking: LSX Rail 1.1

Lumos Solar  
[www.lumosolar.com](http://www.lumosolar.com)  
Circle 420



Fabriccoil®

64 Degrees UC San Diego, CA • Fabriccoil Secura Track System • Architect: Studio E Architects • Photo: Hewitt/Garrison Architectural Photography





## THE MATERIALIZATION OF YOUR INSPIRATION.

**At the intersection of materials, forms, fonts, lighting and technology – discover GEMINI – North America’s leading wholesale manufacturer of custom dimensional letters, logos and architectural plaques.**

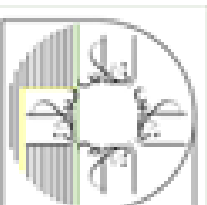
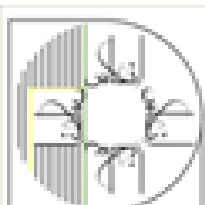
Leverage our unmatched architectural materials, forms and products, UL-certified LED illumination, and international program management capabilities for realization and deployment of your most ambitious design vision. Specify GEMINI for unforgettable placemaking, wayfinding and brand experiences – including an exclusive selection of fonts from renowned designer Chank Diesel.

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Made True.



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## Roofing Products



**PRODUCT SPECS**

Product: DualGuard

S-5!  
[www.s-5.com](http://www.s-5.com)

Circle 419

# Azon Saves Energy



Daylighting systems produced with Azon structural thermal barrier technologies—the MLP™ or Dual Cavity—for aluminum windows and curtain wall, along with high performance glazing components for insulating glass, will yield a fenestration system capable of upholding the highest efficiency and sustainability standards.



1 HSW Learning Unit

Contact us to learn about the role of Azon thermal barriers in energy conservation.

1-800-788-5942 | [www.azonintl.com](http://www.azonintl.com)



**WINTER'S COMING**

DualGuard snow-retention systems can be painted, powder-coated or anodized to blend in with almost any standing-seam roof's finish, while still offering protection from falling snow below the roof line. The two-pipe design holds snow and ice in place while it melts, using mini clips that can fit almost any seam profile.

**In Northern climates, protect the life of the roof and pedestrian's lives with the use of products including snow retention systems and a reliable membrane.**



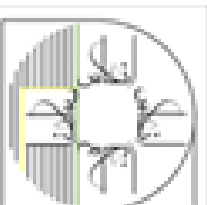
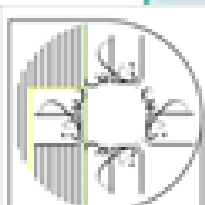
**HEAVYWEIGHT PERFORMANCE**

The 90-mil-thick EcoWhite Platinum EPDM membrane is eligible for a 30-year warranty that includes coverage for incidental punctures, as well as hail and up to 100 mph wind damage. The membrane is available in 50-ft. and 100-ft. rolls, with mechanically attached, fully adhered and ballasted options.

Firestone Building Products  
[www.firestonebpc.com](http://www.firestonebpc.com)

Circle 418

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**SLATE WITHOUT WEIGHT**

The sloped roof is a prominent architectural element on the Greek Revival-styled Middleton senior living facility in Granville, Ohio, and the surrounding area features a number of slate roofs. Synthetic polymer-based Bellaforté Slate offered designers with Davis Wince Architecture the beauty of slate without the corresponding structural requirements.

**PRODUCT SPECS**

Product: FleeceBACK  
KEE HP  
Material: PVC Membrane

DaVinci Roofscapes  
[davinicroofscapes.com](http://davinicroofscapes.com)  
Circle 417



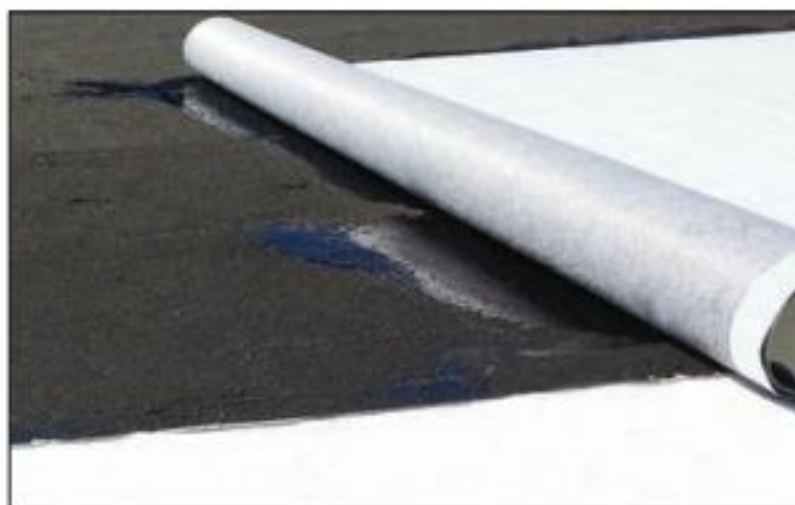
**PRODUCT SPECS**

Product: Cor-Ten AZP  
Raw  
Material: Polymer  
Coating

McElroy Metal  
[mcelroymetal.com](http://mcelroymetal.com)  
Circle 416

**RAW REFLECTIVITY**

Cor-Ten AZP Raw provides the look of weathered metal that's created using a cool-pigment, fluoro-polymer coating over Galvalume-coated steel sheet. This gives standing-seam roofs (along with through-fastened wall panels) a rusted look while still providing the advantages of a highly reflective PVDF coating.



**LIFELONG FLEXIBILITY**

Incorporating DuPont's unique Ketone Ethylene Ester formulation, the new KEE-Stone FB 60 fleece-backed thermoplastic membrane maintains its flexibility throughout a roof's lifecycle. The membrane's polymer-coated, high-performance scrim provides added reinforcement for puncture and tear resistance, as well as enhanced tensile strength.

Garland Co.  
[www.garlandco.com](http://www.garlandco.com)  
Circle 415

# Harness The Power Of Nature.

Colt Natural Ventilation products offer sustainable solutions for automated climate control and passive smoke ventilation.



Brought from Europe to North America by Bilco, Colt jalousie-style window, skylight, and casement window ventilators let you control indoor conditions through the time-tested principles of stack, cross and single-sided ventilation.

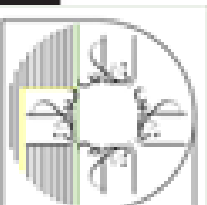
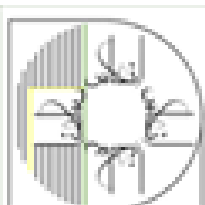
**Colt Natural Ventilation Products:**

- Offer unique design possibilities
- Connect seamlessly to building management or fire protection systems
- Lower building construction and operating costs
- Satisfy ASHRAE, IBC and NFPA requirements and standards
- Enhance or replace traditional mechanical systems
- Reduce your buildings' environmental impact
- Provide occupants a healthier, more productive environment

For more information on Colt products or to learn more about the benefits of natural ventilation, visit [www.bilco-colt.com](http://www.bilco-colt.com) or call us today.



The Bilco Company  
[www.bilco-colt.com](http://www.bilco-colt.com)  
(800) 366-6530



# A Recipe for Innovation

**Editors of *Architectural Products* and our architect and designer judges look forward to evaluating the Product Innovation entrants each year.**

It is truly exciting as the competition always unfolds in such a way to indicate where we are headed as an industry, based on the winning entries that piqued judges' interest and this year's Special Citation winners. This year, standouts included products that save time and energy in the design phase, on the construction site or in building operation.

This year's entries were evidence that manufacturers are moving ahead by mixing it up—working together to learn and discover across industries, in order to cook up integrative, simplified or more intuitive solutions. Most notably in our largest category, lighting, LED products and controls are increasingly refined and well-suited to specific segments; for instance, Circadian lighting stimulates employees to make them more alert and productive.

Gearing up for Passive House or other restrictive energy codes? Check out the exteriors, openings and retrofit categories—all aspects of the envelope are proving more insulative and

durable. I even encountered some never-seen-before interior shading options; and an exterior shade product that offers a customizable solar energy canopy in an off-the-shelf product.

Some of our judges' favorites appear in Special Citations—this year an expanded Special Citations illustrates products that stood out to judges with their ability to alleviate a particular pain point commonly encountered designing for specific markets.

A big thanks to our enthusiastic judges: we could not do this without their time, expertise and colorful commentary. Each year I look forward to sharing their frank perspectives, in hopes it will alert readers to a certain new product that may be a perfect fit for a current project.

The Thanksgiving holiday is upon us, and I hope that alongside football, family and a cornucopia of food, you'll enjoy celebrating this veritable products feast we call the PIAs.

**Cheers,**  
Megan Mazzocco, Senior Editor

- 44 Special Citations
- 56 Leadership
- 60 Building Envelope
- 62 Furnishings
- 64 Kitchen and Bath
- 66 Interior Lighting
- 72 Exterior Lighting
- 74 Elevators
- 76 Surfaces
- 80 Wood and Composites
- 82 Openings, Doors and Hardware
- 84 Solar Control and Shading
- 86 HVAC
- 88 Thermal, Moisture Protection

## Judges

### VILMA BARR

Barr Publications  
Veteran lighting writer  
for *Architectural SSL*

### CECELIA CONOVER

Studio Conover  
Owner/Partner

### DAVE CONOVER

Studio Conover  
Owner/Partner

### DARIN DAGUANNO

SmithGroup  
Principal

### JENNIFER ENG

FRCH Worldwide  
Senior Resource Designer

### SUSAN GROSSINGER

HOK  
Senior Vice President, Director  
HOK Product Design

### JESSICA HARTWIG

dpopculture  
Material Librarian

### GRACE JEFFERS

Grace Jeffers Inc.  
Materials Historian, Interior  
Designer, Product Designer

### SCOTT KNUDSON

Wienczek + Assocs.  
Vice President

### KAREN CLETTENEY

RMW architecture &  
interiors  
Studio Director of Interiors

### SALO LEVINAS

Shinberg Levinas  
Principal

### DEENI NAYDENELINTON

Marriott International  
Design Resource Manager,  
Global Design Strategies

### INGRIDA MARTINKUS

Gensler  
Associate

### JOHN MESENBRINK

*Architectural Products*,  
*Net Zero Buildings*  
Contributing Editor

### ROBERT PHINNEY

Page Southerland  
Associate Principal

### JONSARA RUTH

Parsons School of Design  
Director of Design Healthy  
Materials Lab

### ALI SIDDIQUE

IA Interior Architects  
Designer

### CONNIE SAMLA

Sacramento Municipal Util-  
ity District  
Lighting Specialist

### AMY SHAVELSON

Wingate Hughes Architects  
Studio Director

### MARGIE TERAOKA

Product Consultant  
Interior Design, Feng Shui,  
Color Consultant

### ALAN WEIS

*Architectural Products*,  
*Net Zero Buildings*  
Contributing Writer

### BRIAN WOLF, CCS, LEED

APBD+C  
Cannon Design  
Associate Vice President

### MARISSA YU, AIA

Page Southerland  
Principal

In theory, the main purpose of a business publication, such as this one, should be to convey information that facilitates the job of its readers...

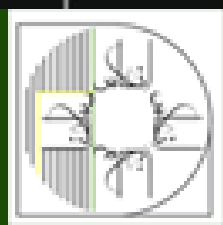
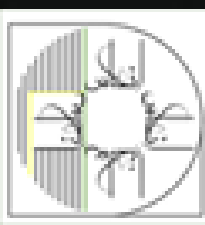
Now in its 6th iteration, we hope this year's Product Innovation Awards deliver on this promise with items reflective of the trends driving design.

# PIA·16

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## Special Citations

Special Citations recognize products that provide unique solutions to design challenges specific to market segments.



As judges evaluated entries, we asked them to score products in several categories, including whether they thought items were particularly well-suited to a particular market segment. Judges indicated that, as well as what appeared to them to be most original or unique thinking in product design and integration. The result is several special citations in the following categories, beginning with most unique.



### SPECIAL CITATION

Most Unique

#### Judge's Comment:

**"Fabrik is a clean-cut, simple and elegantly done retrofitting system. It is not directly sustainable, yet as a product that has such incredible versatility and with its recycling ability it is a strong contender in today's sustainable marketplace."**



#### Wrap a Building in Brick

Fabrik "architectural textile" is an ultra-customizable cladding solution. Comprised of a large and flexible stainless-steel frame, Fabrik is outfitted with "elements" or inserts—basic decorative units—which can be arranged in virtually any geometric pattern. Inserts can be terracotta, wood, glass, metal and countless other materials. Once populated with inserts in the specified pattern, Fabrik can be mounted onto virtually any building and allowed to hang, to cascade downward in expansive sheets, instantly dramatically transforms the building's exterior. By modifying less than 10% of components, Fabrik becomes a veritable architectural panacea—useful not only as cladding, but as roofing, paving, interior screen, pergola, trellis or lattice. As a roofing material, it can conform to virtually shape: dome, flat or sloping. **Circle 413**



#### SHILDAN GROUP

Fabrik  
[www.shildan.com](http://www.shildan.com)



### SPECIAL CITATION

Healthcare

#### Caring Barrier

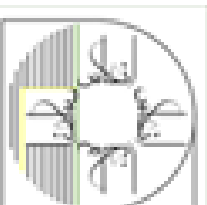
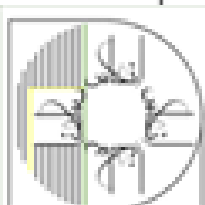
Sherwin-Williams bacteria-fighting paint was developed to help fight hospital acquired infections in healthcare settings. With the power to kill bacteria, paint shield has become the first EPA-registered microbicidal paint. **Circle 412**

#### SHERWIN-WILLIAMS

Sherwin-Williams Paint Shield  
[swpaintshield.com](http://swpaintshield.com)

#### Judges' Comments:

- ▶ "Adding health benefits to a product we are already familiar with and are using, makes this product a no-brainer."
- ▶ "GreenGuard certification ensures that this is the right product both during installation and for occupants."





# NEOLITH

## Extraordinary Surface.

Interior and exterior applications: Flooring, Cladding, Countertops, Furniture and Facades.  
Resistant to stains, scratches, chemicals, extreme temperatures and UV rays exposure.  
Maximum format, minimum thickness, different finishes. More than 50 available models.

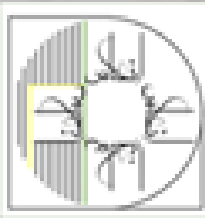
**Design, Durability, Versatility, Sustainability.**

FM Distributing, HG Stones, IMC By The Stone Collection, Holland Marble, Innovation Surfaces, La Nova Tile,  
Marble & Granite International, Marva Marble & Granite, Ollin Stone, Omicron Granite, Pacific Shore, Stone Center, Stone Design



Flooring: Calacatta Polished, Designed by Estudio de Arquitectura Betarq, Fairmont Hotel, Barcelona, Spain

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**SPECIAL CITATION**

Retrofit



**Sensors + Controls**

The Enlighted System is a network of smart sensors that gather data on things like light, heat and occupancy, and configures and manages lighting behavior by adjusting software profiles while retaining lighting data for up to 36 months. The app also generates reports on lamp and fixture outages, carbon reduction, energy and financial savings. The Enlighted Space app provides building utilization data from the system's advanced lighting sensors; while the Enlighted Aire app uses the system's advanced lighting sensors to optimize HVAC service in spaces based on occupancy patterns.

Circle (411)

**ENLIGHTED**

The Enlighted System  
[www.enlightedinc.com](http://www.enlightedinc.com)

**Judges' Comments:**

- ▶ "This system should be subsidized in retrofits for the benefits to be realized by the entire built environment, and to help fight climate change."
- ▶ "A centralized system telling building zones' systems when to turn off is what is needed in today's buildings, so zones are only operating when people are present."
- ▶ "Applying software to building systems is a very necessary and heroic application in energy savings and reducing carbon emissions."



**Judges' Comments:**

- ▶ "This is certifiable wood and high-performing thermal break. Passive house likes it; I am sold."
- ▶ "The Zola Arctic would be great for retrofits in hotel, hospitality and retail markets, to name a few. Those market types have old buildings with terrible windows; please retrofit them with this product for high-performing thermal break up to passive house standards."



**SPECIAL CITATION**

Retrofit

**Seals Out Weather**

Timber-aluminum frame, PU-foam insulation, thermal glazing, and a super-space triple seal with butyl as a secondary seal—combine in the Arctic to deliver high performance in a broad range of temperatures and climates. Passive House Institute certified, the Arctic offers thick insulation, an R-value of 15 and quadruple glazing in an exceptionally slim frame, allowing for a light aesthetic profile without compromising thermal performance. It has a visible light transmittance (VT) of 64%, allowing for maximum light and a seamless transition between the interior and exterior. Circle (410)



**ZOLA WINDOWS**

Zola Arctic  
[www.zolawindows.com](http://www.zolawindows.com)



**SPECIAL CITATION**

Retrofit



**3-D Panel Perfection**

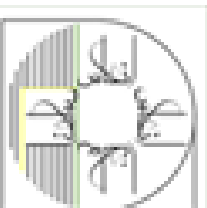
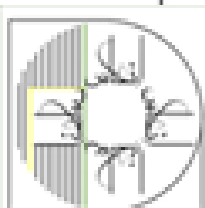
Nichiha's Metallic Series Ribbed Architectural Wall Panels are a fiber cement decorative panel product featuring 3-D qualities, making a striking impression on both exterior and interior projects. It provides a unique aesthetic finish without the weight issues or cost associated with conventional metal cladding. What's more, the system's integrated rainscreen saves installation time while ensuring moisture can drain away and the wall cavity can dry out, helping to maintain the integrity of the building envelope. Its sleek appearance makes it ideal for complementing modern materials such as block panels, glass or metal. Circle (409)

**Judges' Comments:**

- ▶ "This is an easy choice for a retrofitting product. A cost-effective and easy-to-apply solution to increase both the value of the building and its durability for a good 50 years."
- ▶ "The back ventilated rainscreen, lightweight product and cost effectiveness, makes this product a brilliant addition to any building."

**NICHIHA USA**

Metallic Series Ribbed  
Architectural Wall Panels  
[www.nichiha.com](http://www.nichiha.com)





# PrivaSEE—Control Sound Transparently



## The One and Only NanaWall

PrivaSEE frameless opening glass wall provides flexible space management and enhanced acoustical separation.



- Independently tested and rated to STC of 36 and OITC of 30.
- Provides better sound buffering than many fixed all glass partitions.
- All glass system with no floor track.

Get inspired.

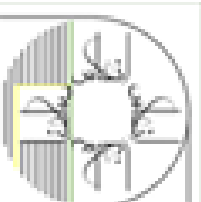
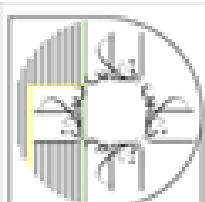
Showrooms Nationwide  
800 873 5673

NanaWall®

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**SPECIAL CITATION**

Retail

**On Track Retail Lighting**

A clean, cylindrical track fixture with integral driver. Juno Trac-Master Flat Back Cylinder LED track fixtures feature dimmable integral LED drivers in a fashionable, classic design ideal for retail and commercial accent lighting applications. A patent pending precision optical system produces uniform spot, narrow flood, or flood beam distributions with minimal illumination outside of the primary field angle; i.e. no outer rings, just a smooth fade-out at the edge of the beam. In addition to the typical 2700K, 3000K, 3500K and 4000K color temperatures in 80 and 90 CRI, this fixture is also available with a new SpectralWhite color/white enhancing LED that has CRI and Color Quality Scale (CQS) scores of 90+. It renders all colors richly and makes whites appear bright and vivid showing distinctions between different shades of white that cannot be seen under standard LED light sources. **Circle 408**

**Judge's Comment:**

**"Well-designed versatility and sleek-looking aesthetic will get specified in retail applications without hesitation."**

**JUNO LIGHTING / ACUITY**

Juno Trac-Master Flat Back LED Cylinders  
[www.junolightinggroup.com](http://www.junolightinggroup.com)



**SPECIAL CITATION**

Retail

**Print-Free Finish**

Formica Infiniti addresses the trend for super-matte design looks while providing a super-matte surface that resists fingerprints and bacterial growth, requiring little maintenance. It is available in all Formica Brand colors and can be applied vertically and horizontally with thermal healing capabilities. Formica Infiniti also offers endless design possibilities in any setting that calls for countertops, tables, doors, partitions, cabinets and furniture. **Circle 407**

**FORMICA GROUP**

Formica Infiniti  
[www.formica.com](http://www.formica.com)



It also can be used in hospitality applications as it resists bacterial growth.

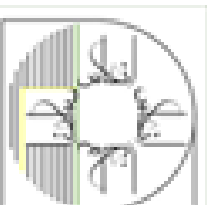
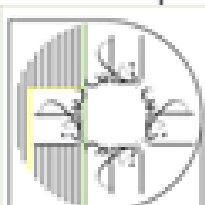


**Judges' Comments:**

- ▶ "For settings like retail and hospitality interiors where it must look perfect and then be updated with the fashion cycle, this makes sense."
- ▶ "Super durable, super matte, bacteria-resistant laminate. These new colors, patterns and textures add to the designers tool box."



Super-matte finish resists fingerprints and requires little maintenance.



THE AWARD WINNING

# ALLURA™ SHUTTER

MODEL 653



INDUSTRY LEADING  
COMMERCIAL & INDUSTRIAL SOLUTIONS



Architectural Products Magazine

**PIA'16**

product innovation awards

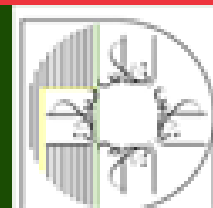
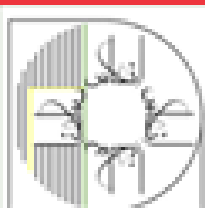


A PERFECT BLEND OF INNOVATION AND AESTHETICS

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**SPECIAL CITATION**

Sustainability

**Look Up for Health**

Sustain Ceiling Systems offer an array of high-performance ceiling systems that comply with health and sustainability requirements associated with the most stringent certification bodies including LEED, the Living Building Challenge and even the California Dept. of Health low-emitting materials requirements. Available in acoustical and metal ceiling panels, and suspension systems, the Sustain portfolio includes a variety of materials, shapes and sizes, including metal ceiling panels, or mineral fiber and fiberglass ceiling panels with Total Acoustics performance—a balance of sound absorption (NRC) and sound blocking (CAC) in a single panel. **Circle 406**

**ARMSTRONG CEILING SOLUTIONS**

Sustain Ceiling Systems  
[www.armstrongceilings.com](http://www.armstrongceilings.com)



**Judges' Comments:**

- ▶ "Great that they use HPDs, EPDs and Declare, and their closed loop recycling story is compelling."
- ▶ "A vote for this is a vote of support for a program that diverted 97,000 tons of ceiling panels away from landfills. Simply amazing!"



**SPECIAL CITATION**

Sustainability

**Hitting the Slopes**

The Flintlastic self-adhering roofing systems are aesthetically pleasing, install quickly and are extremely durable. Installation does not require torches or hot asphalt and equipment needs are minimal, resulting in a fume-free jobsite and a cleaner and faster application, making SA systems ideal for healthcare and educational facilities where occupant comfort is implicit. Flintlastic SA Cap and SA Cap FR are available with CoolStar solar reflective granules, exceeding Energy Star and California Title 24 standards, and can help reduce energy costs by as much as 30%. It can be used in three- or two-ply applications and color coordination with shingles and adjacent shingle roofs is simple. **Circle 405**

**CERTAINTEED**

Flintlastic SA  
[www.certainteed.com](http://www.certainteed.com)

**Judge's Comment:**

"With close to 90% of production waste being reused for asphalt roads, packaging materials, corrugated rolls and kraft paper, this is a very sustainable product. Its photovoltaic roofing is also a way of creating sustainable energy. This is a great product with the potential to raise industry standards."



**SPECIAL CITATION**

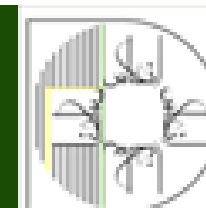
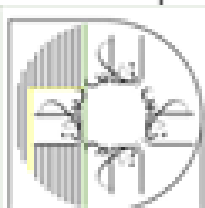
Sustainability

**Flowing from Nature**

Noraplan valua is a versatile rubber floor covering that captures the essence, shades and surfaces found in nature. The floor is free of polyvinyl chloride (PVC), plasticizers (phthalates) or halogens (e.g. chlorine) and is GreenGuard Gold Certified for low-VOC emissions. Its footfall sound absorption properties makes for quiet surroundings, while its bacteriostatic and fungistatic properties help to ensure a hygienic environment and elimination of waxes and other harsh cleaning products from the floor's maintenance regimen contributes to improved indoor air quality. The floor exceeds OSHA regulations for slip resistance and offers an extended life cycle—as long as 30 years—which reduces the need for frequent removal and disposal. **Circle 404**

**NORA SYSTEMS, INC.**

noraplan valua  
[www.nora.com](http://www.nora.com)



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Circle 49



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ELEVATOR PROTECTION SYSTEMS

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**inpro.**

Circle 50

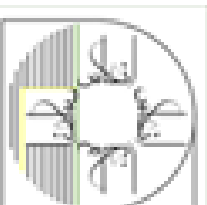
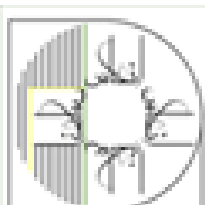


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**SPECIAL CITATION**

Hospitality

**Gilded Age**

Glamir mirrored glass in pastel jewel tones provides original colored mirrors to brilliantly enhance the look and feel of interior spaces, as they improve the quality and quantity of interior light. Among other luxurious colors, the company offers champagne and pale gold colors as part of the collection. The Glamir collection is produced with specialty low-iron glass, eliminating the typical bluish-green glass tint and allowing the pure, jewel-like colors to shine through. The refined pastel shades expand the architect and designer's palette with a broad range of previously unavailable hues, including virtually unlimited custom colors and customizable sizes, up to 47-in. x 120-in. **Circle 403**



Mirrored glass in pastel jewel tones enhance the look of interior spaces.

**BENDHEIM**

Glamir Architectural Mirror Collection  
[www.bendheimarchitectural.com](http://www.bendheimarchitectural.com)



**Judge's Comment:**

**"Great range of colors from subtle to bold. Champagne and pale gold colors are very on trend."**



**SPECIAL CITATION**

Hospitality



**Polished Perfection**

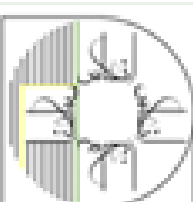
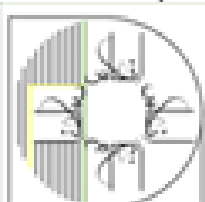
Neolith sintered compact surfacing features a proprietary polished finish made up of a thin layer of glass and silica that is melted directly onto all digitally decorated designs and full body designs. The polish goes through a kiln, to melt and fuse the components, creating a perfectly flat linear reflection without the need for sealing the slab. This process creates the exclusive polishing effect that is suitable for an array of applications, including countertops, interior or exterior wall cladding and interior floors with low traffic. The surface is completely non-porous and will not stain. Thermal shock tests have been conducted prove that the polished finish can withstand extreme heat conditions without fading or cracking. **Circle 402**

**THE SIZE / NEOLITH**

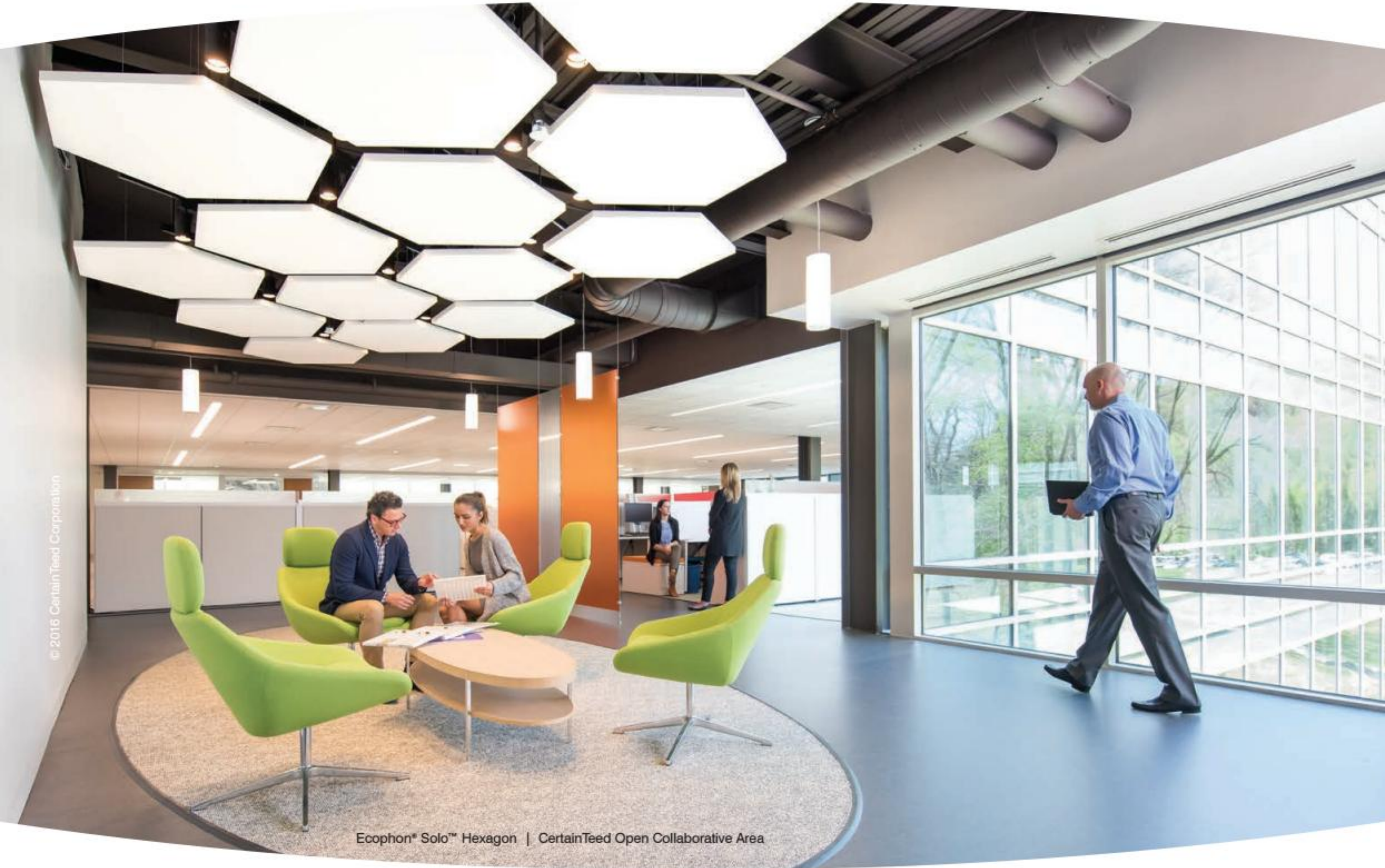
Polished Finish by Neolith  
[www.thesize.es](http://www.thesize.es)

**Judges' Comments:**

- ▶ "This is a great product due to its versatility in application and visual appearance."
- ▶ "A beautiful, sustainable, resilient, flexible of application... It has my vote!"
- ▶ "A bit on the pricey side, but worth the expense if at all possible."



Nothing drives home the value of  
**speech privacy**  
like finding a space to discuss ceiling solutions for



Ecophon® Solo™ Hexagon | CertainTeed Open Collaborative Area

In today's commercial and medical spaces, collaboration is important. So are privacy and noise reduction. At CertainTeed, we understand how advanced acoustics and inspired design can enhance focus and performance – because our headquarters is a living lab of our own acoustic ceiling and wall products. We experience our solutions as occupants so we can improve them as experts.

**CertainTeed**  
SAINT-GOBAIN

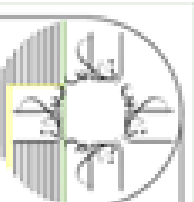
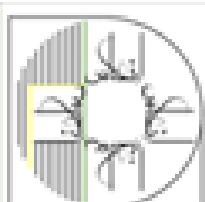
Discover more ceiling design possibilities  
at [CertainTeed.com/SpeechPrivacy](https://www.certainteed.com/speechprivacy)

CertainTeed Ceilings | Ecophon® | Decoustics® | Gyptone® | Performa®

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**SPECIAL CITATION**

Office



**Circadian Benefits**

The Indy tunable spectrum low profile LED troffer offers the ability to tune the spectra to support an optimal circadian response in a variety of settings using Indy ChromaControl technology. 2 x 2, 2 x 4 and 1 x 4 models contain a 5-channel linear light engine of spectral-specific mid-power LEDs to allow the circadian action spectra to be gradually increased as the color temperature of the fixture adjusts from 2000 to 8000 K. The Indy ChromaControl troffer has the spectral content specifically tailored to support an optimal circadian response in office, education and healthcare settings based on the latest research on the peak sensitivity of the non-vision photoreceptors. The product may be controlled using a variety of protocols including 0 to 10V, DMX, Dali & Bluetooth from a smart phone or tablet. **Circle 401**

**JUNO LIGHTING / AUCITY**

Indy ChromaControl Low Profile Troffer  
[www.junolightinggroup.com](http://www.junolightinggroup.com)

**Judge's Comment:**

**"This is lighting to which you can set your circadian clock. The ability to stimulate alertness could really come in handy in combating post-lunch lethargy."**



**SPECIAL CITATION**

Office

**Smart, Sophisticated Glass**

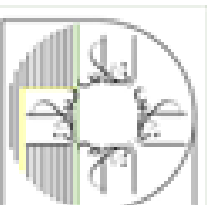
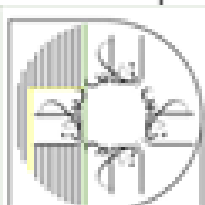
The Carvart Contract line of architectural glass and hardware is functional and brightens up an office space with sophisticated backpainted glass. The system includes a wide range of opaque and translucent colors, patterns, gradients and wood and textiles effects to delineate open space, block sound, optimize daylighting, and provide privacy while encouraging collaboration. The refined line includes designs for room dividers, wall cladding, workstation glass panels, divider screens, glass tops, glass shelves and movable and wall-mounted marker glass. Choose smooth, Etch and WriteEtch writeable or projectable surfaces in a broad, harmonious palette of 27 back-painted colors, 24 metal frame colors and 50 options of laminated glass using color, pattern, wood, textile and gradient aesthetics. **Circle 400**

**CARVART**

Carvart Contract  
[carvart.com](http://carvart.com)

**Judge's Comment:**

**"A very versatile product with a lot of opportunity for creativity— I especially like its possibilities in renovations as way to add color and privacy where needed in more open offices."**







## LET IT SNOW!

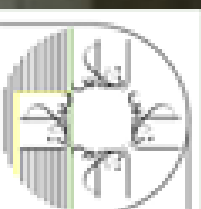
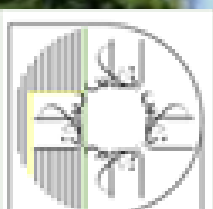
IN LOCATIONS WHERE THE WEATHER OUTSIDE IS FRIGHTFUL, MAPES CANOPIES CAN BE ENGINEERED TO WITHSTAND ALMOST ANY HEAVY SNOW DRIFT LOAD THAT MOTHER NATURE DISHES OUT! Visit our website to read more about this project, get a quote, or build a spec. **888-273-1132 WWW.MAPESCANOPIES.COM**



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**SPECIAL CITATION**

Leadership

**Company: Vitro Architectural Glass (formerly PPG Architectural Glass)**

In 2012, through input from the architectural community and web analytics from the PPGIdeascapes.com and InspireScapes.com sites, what was then PPG Architectural Glass determined that a need existed for educational information about glass design. To strengthen this position, the company conceived of the PPG Glass Education Center [educationcenter.ppg.com]. Developed in collaboration with the Pipitone Group, the site was conceived as a comprehensive resource for anyone interested in learning more about integrating glass into commercial construction projects.

The perceived need for this resource was supported by data obtained by tracking visitors, as well as social media sites, which showed that people had a propensity to "like" updates that were educational in nature. In addition, the target audiences all expressed a need for basic, current information online. As a result of the feedback, the Glass Education Center provides content in multiple formats, including narratives, infographics, videos and slide presentations. The objective was to create a highly visual, blog-like site. Since users consume content in different ways, content is easy to find, understand and share. In addition, while many of the subjects are designed to provide an introduction to a specific topic, links to more technical information are provided.

Three years since its inception, there is not another site in the glass industry dedicated to presenting the breadth and depth of educational information that the center provides.

**Judge's Comment:**

"It's often difficult to run a business and have the time to think of ancillary tools that might help the community—and tools, at that, which take into consideration contemporary social media and digital practices. Ongoing education is critical, especially in context of evolving materials and envelope performance expectations. Hats off to PPG for being very proactive."



YISC worked with Gensler to create a custom ceiling at the Etihad Airways Lounge at JFK.



**SPECIAL CITATION**

Leadership

**Company: Armstrong Ceiling Solutions**

With the formation of the You Inspire Solutions Center (YISC), a complimentary service, which offers architects, designers, and contractors design and pre-construction assistance to help them bring one-of-a-kind ideas to life, Armstrong is setting the direction for how the industry will operate in the future. The service is available for ceiling designs requiring unique solutions or special attention, including one-of-a-kind products, custom applications, new systems, complex geometries and challenging transitions. Staffed by a dedicated team of design professionals, YISC provides support from initial design, through product selection, integration with installation and accessories, customization, engineering and specification. The service is ideal for architects and designers with unique ideas for

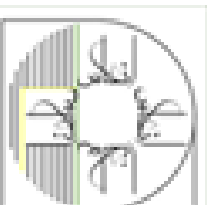
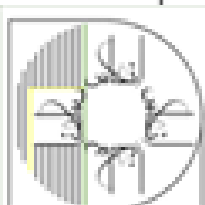
complex ceiling solutions who need help executing their vision.

Design assistance services include collaborative design, detail drawings, specifications, planning and budgeting. Pre-construction assistance services include layout drawings for standard and premium products, project installation recommendations, and contractor installation assistance.

Helping customers execute their design visions and finding ways to customize existing ceiling products to meet those unique specifications is where the company sees growth for the commercial ceilings industry in the future.

**Judge's Comment:**

"I'm all in when it comes to architectural services like this. Since the economic downturn, architectural firms have obviously contracted, and any help the industry can offer is invaluable. Above and beyond that, this service connects human beings to human beings opposed to getting the re-routing treatment from hell. I'd like to see more such services available."

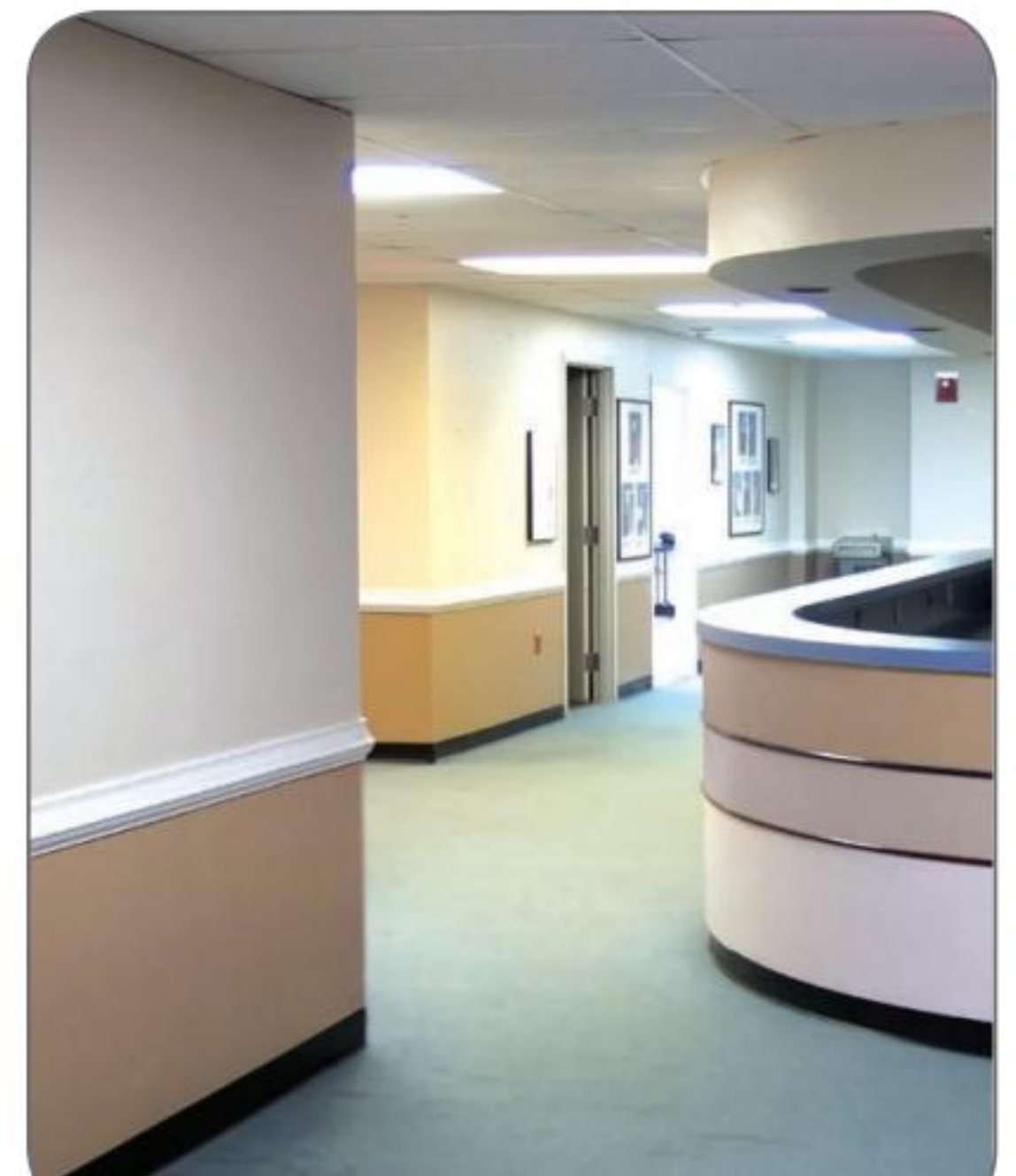


# PolyMAX Wainscot® wall panels



**The good looks are more than skin deep.  
The performance is proven.**

PolyMAX Wainscot® and Plank give you a fine, finished appearance with or without painting or staining. Ideally suited for restaurants, institutions and other demanding commercial applications. Both the reversible beadboard planks and the laminated panels go up quickly using Parkland's custom designed adhesives. When installed with matching chair rail and base they create wainscot walls that look great from the start and keep on looking good for years to come. The tongue and groove planks can be creatively installed vertically, horizontally or diagonally to achieve your own design. PolyMAX is 100% waterproof and will not support the growth of mold, mildew or bacteria.



  
Parkland Performance™

[www.parklandplastics.com](http://www.parklandplastics.com)

800.925.4110

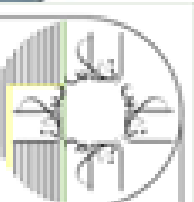
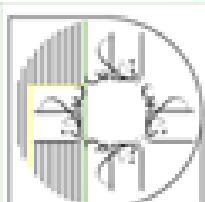


PRODUCT CERTIFIED  
FOR LOW CHEMICAL  
EMISSIONS:  
UL.COM/IGG

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**SPECIAL CITATION**

Leadership

**Company: J+J Flooring**

Last year, the company announced it had been certified as a Zero Waste to Landfill manufacturer by GreenCircle Certified, a prominent third-party certifier of environmental claims. J+J Flooring Group became—and still is—the first commercial flooring manufacturer in the United States to achieve this landfill-free status. It is also the first company in the industry to have its waste diversion efforts audited and verified by a recognized, third-party certifier of environmental claims.

Over the years, through effective reuse, recycling and repurposing methods, the company has significantly decreased the amount of waste it directly sends to local landfills. This long-standing initiative concluded in the fall of 2014 when the company officially stopped sending any material directly to the landfill.

In 2015, continuing this year and into the future, any waste at J+J's Dalton, Ga., campus that cannot be recycled, reused or repurposed—approximately 2% of its total waste—is sent to Covanta, the country's largest energy-from-waste operator. The waste received by Covanta will be converted into energy to help provide steam power to the Redstone Arsenal, a U.S. Army garrison that services a number of tenants including the Army Materiel Command, the Missile Defense Agency of the Department of Defense and NASA's Marshall Space Flight Center.

To further demonstrate commitment to waste diversion, J+J Flooring Group selected GreenCircle to verify its waste diversion process. This certification included a material flow analysis of J+J's Dalton campus as well as a review of its downstream material management organizations receiving J+J's waste. After verification of the processes, sources and procedures, GreenCircle awarded J+J Flooring Group a Zero Waste to Landfill Certification.



**Judge's Comment:**

"This company puts its money where its mouth is when it comes to waste management and product after-life. I applaud their efforts. Such a program stands as a model for the rest of the products industry."



J+J has implemented a zero landfill policy that has gone a long way fulfilling its 2020 goals.



**SPECIAL CITATION**

Leadership

**Company: Humanscale**

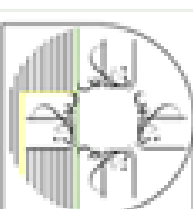
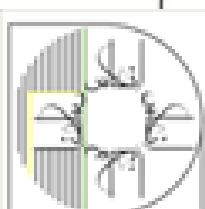
Since its founding, Humanscale has pioneered the healthy, active workspace. It is guided by three distinct principles: Performance, Simplicity and Longevity. With an aim to achieve a net positive impact on the earth, it has evolved its manufacturing processes and facilities to become more sustainable. In fact, it is the only manufacturer in the industry to participate in the Living Product Challenge. Further it is guaranteeing that itFloat table and Smart chair are net positive products.

A member of the World Wildlife Fund, WWF's National Council for more than 15 years, the company has been active in working to protect and restore the Cambodia's Eastern Plains alongside the World Wildlife Fund. Through the ecosystem preservation program Humanscale supports, as many as 300 tigers could be reintroduced back into the area.

Humanscale is also committed to complete transparency and leads the way in developing rich and thorough Health Product Declarations (HPDs) for every one of its products.

**Judge's Comment:**

"Humanscale is a company that is equally concerned about human health and well-being in the workplace as it is with the greater picture of the ecological health in the world for generations to come which is as it should be. The company is leading its office systems peers by example in having a Chief Sustainability Officer, providing HPDs for all of its products and recently becoming the manufacturer of a Living Product by the International Living Future Institute. This is something that few office furniture manufacturers are concerning themselves with, although they all should."



# NEW BLUE. NEW POSSIBILITIES.

SNX 51/23 on **CrystalBlue**

## “New Guardian CrystalBlue™

is perfect for contemporary structures that are big on light, smart on energy. Our clients prefer its light blue color, and CrystalBlue pairs perfectly with the SunGuard® coatings we specify.”

*Paulo Perkins, GraceHebert Architects*

SN 68 on CrystalGray

Spandrel HT

BUILD WITH LIGHT®

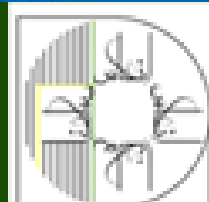
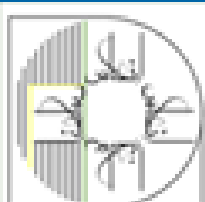
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1 CERTAINTEED



3 VITRO ARCHITECTURAL GLASS



4 BORAL BRICK



2 YKK AP AMERICA



5 NUDURA

## The Building Envelope

### 1 CERTAINTEED

NorthGate  
[www.certainteed.com](http://www.certainteed.com)

#### Durability and Longevity

This durable laminated fiberglass-based roofing shingle showed a 40% improvement in tear strength and nail pull-through resistance, and a 15% increase in granule retention, as compared to a standard asphalt shingle.

Circle 399

**Judge's Comment:** "There are few if any—comparable; that is a sign of innovation."

### 2 YKK AP AMERICA

YCW 750 XT IG High Performance Inside Glazed Curtain Wall System  
[www.ykkap.com](http://www.ykkap.com)

#### A Superior Curtainwall

Featuring YKK's MegaTherm thermal struts, this curtainwall exhibits high thermal performance. When paired with 1-in. insulating glass units, it delivers a system U-factor as low as 0.30. An inside glazed product, the system meets energy codes. Circle 398

**Judge's Comment:** "The product offers solutions to a wide list of issues related to its market while improving performance."

### 3 VITRO ARCHITECTURAL GLASS

(FORMERLY PPG)  
 Solarban 90 Glass  
[www.ppgideascapescapes.com](http://www.ppgideascapescapes.com)

#### The Best of Triple Coating

Topping Solarban 70XL glass with a 15% increase in heat gain resistance, this next generation triple-coated glazing product can achieve a solar heat gain coefficient of 0.23, a visible light transmittance of 51% and an exceptional light-to-solar-gain ratio of 2.22. The glazing also delivers neutral reflectivity and neutral color, blending in well with IGUs with clear glass, ultra-clear glass or performance-tinted glass. Circle 397

**Judge's Comment:** "A very efficient glass that blends in well with its surroundings. The nano-layer adds a whole new dimension to performance and control."

### 4 BORAL BRICK

Boral Drain-N-Dry Lath  
[www.boral.com](http://www.boral.com)

#### Next Level Lath

Combining a fiberglass lath with a rainscreen secondary water resistive barrier (WRB), this lath addresses the need for drainage, drying and moisture vapor control underneath stone and stucco. Manufactured in 150-sq.-ft. rolls, water infiltration in the WRB is reduced with fewer seams and fastener penetrations. Circle 396

**Judge's Comment:** "The unification of the layers of components that would be installed individually into a single roll is an incredible time saver."

### 5 NUDURA

One Series by NUDURA  
[www.nudura.com](http://www.nudura.com)

#### Traditional Forming Meets ICP Technology

Creating a fully exposed concrete surface that extends to the face of a standard form panel, this product capitalizes on insulated concrete form technology to make building easier. With DURA MULTILINK, custom multi-sided form combinations can be created. Circle 395

**Judge's Comment:** "Great idea, expanding the potential for use of insulated forms to those locations where you can only have half of it insulated."

# A NEW SPIN ON VINYL

2015 PRODUCT INNOVATION AWARD | DOORS, WINDOWS & OPENINGS

Architectural Products Magazine

## PIA'16

product innovation awards



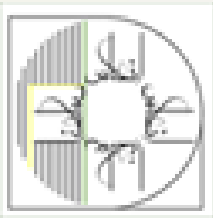
SETTING A NEW STANDARD IN VINYL FOLDING DOORS

 **LaCANTINA DOORS**

**آموزشگاه انعکاس منبع جدیدترین اطلاعات، مقالات و دوره‌های آموزشی دکوراسیون داخلی**

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SkeleCore™ FTS

# JUMBO

is your MVP!



**NOW AVAILABLE** -- The SkeleCore FTS (Fabric Tensioning System) Jumbo Series is a larger-scale version of the patented FTS textile air dispersion ventilation and suspension/retention system. Sizes are available from 50" to 100".

Jumbo Series is perfect for High Bay Areas including:

- Aircraft Hangars
- Convention Centers
- Sporting Venues
- Maintenance
- Industrial

Whether it is the FTS or Pull-Tight system, SkeleCore tensions and supports the fabric—meaning no noise, no sagging, and no wrinkles. With SkeleCore, you also enjoy the traditional benefits of fabric ductwork, including better air dispersion and lower overall cost than metal ductwork.

Go to [www.ductsox.com/jumbo](http://www.ductsox.com/jumbo) for more information.

**DUCTSOX**  
Textile Air Dispersion Products

REDEFINING AIR DISPERSION



## Office Furnishings

### 1 QUICKSTAND LITE



▲ The QuickStand height-adjustable workstation raises the bar for ease of use and stability among sit/stand products; it seamlessly transforms any fixed-height desk into an active one, promoting collaboration and well-being in the workplace.



2 TREA

### 1 HUMANSCALE

QuickStand Lite  
[www.humanscale.com](http://www.humanscale.com)

#### Sitting or Standing

Transforming a simple desktop into an active work-space, this Red Dot Award-winning QuickStand Lite supports a variety of sitting and standing keyboard positions and the ability to easily transition between the two, thanks to a counterbalance mechanism. **Circle 394**

**Judge's Comment:** "QuickStand and its predecessor are the only products that allow for true sit/stand use without furniture modification and consider both the monitor and its relationship to the keyboard."

### 2 HUMANSCALE

Trea  
[www.humanscale.com](http://www.humanscale.com)

#### Not Just Any Chair

With an interchangeable four-star cantilever or four-leg/three-leg base, this ergonomic chair is easily adaptable to different environments. Facilitated by body weight and physics, the user's movement from posture to posture occurs seamlessly. **Circle 393**

**Judge's Comment:** "A breath of fresh air in appearance, three optional bases feature an absence of knobs and levers for adjustment."

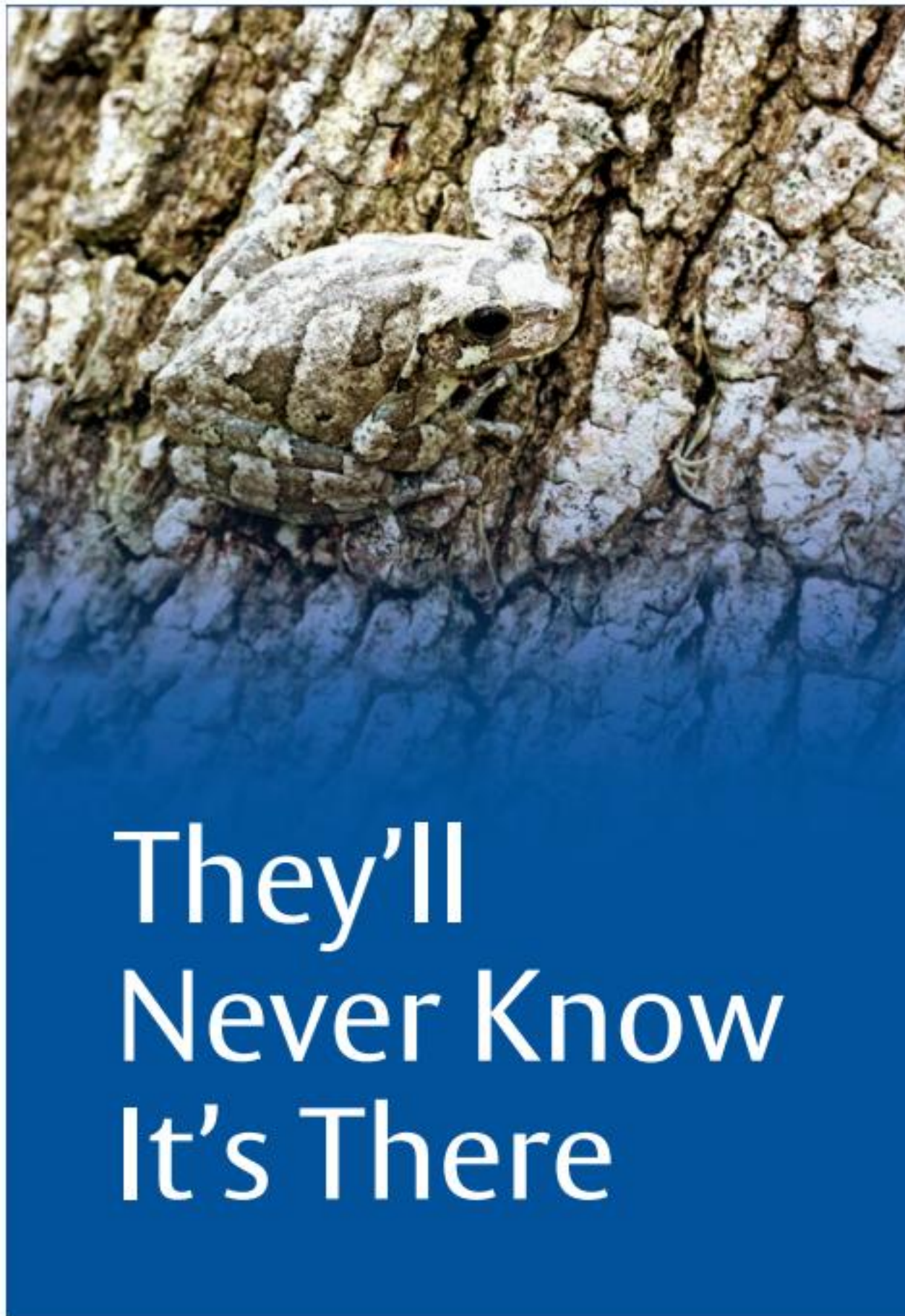


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They'll  
Never Know  
It's There

## The Concealed Closer That Stands Out



What you don't see, matters. The Rixson 91 Series closer minimizes visual impact while making a statement in function and durability. Designed for heavy duty applications, this reliable closer is ANSI Grade 1 certified, UL certified, and ADA compliant. The 91 Overhead Concealed closer comes in 14 finishes to blend with any opening and is appropriate for wood, metal and aluminum doors. Add in the ease of installation and low maintenance, and this is the concealed closer that's a stand-out in performance.

**RIXSON**  
**ASSA ABLOY**

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ASSA ABLOY, the global leader  
in door opening solutions

Circle 58



## Ride the Wave

WHISPERWAVE™ provides design flexibility and exceptional acoustical control across all frequencies. Made from Class 1 fire-rated willtec® foam, WHISPERWAVE can be suspended from the ceiling as a cloud, baffle or awning or mounted along the wall like a ribbon. It is offered in custom wave designs and in sizes up to 48 by 96 inches.

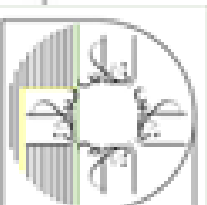
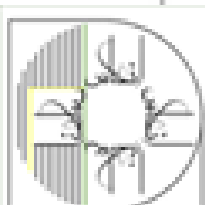
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1 SCRANTON PRODUCTS

◀ Judge's Comment:

"Great combination of sustainable criteria, function and simple aesthetics."



2 MOEN

**Judge's Comment:**  
"Beautiful commercial restroom faucet and flush valve!"



3 VICTORIA + ALBERT



4 MTIBATHS

◀ Comfy and curvaceous, it is simple, minimalist in design, space-conscious and reminiscent of the luxurious spa setting.

## Kitchen and Bath

### 1 SCRANTON PRODUCTS

Eclipse Partitions  
[www.scrantonproducts.com](http://www.scrantonproducts.com)

#### Pretty Partitions

A contemporary headrail, hidden bracket and concealed hinge create these attractive no-sight partitions, which come in a large selection of colors and textures. The HDPE partitions are durable, bacteria-resistant and easy to clean. Available in 55-in., 62-in. and 72-in. extra high door and panel designs, the partitions are angled to enhance privacy. **Circle 392**

### 2 MOEN

Commercial M-Power Below-Deck  
Sensor-Operated Faucets  
[www.moen.com](http://www.moen.com)

#### New and Improved

Updating its below-deck, sensor-operated lavatory faucet with a new, modern and transitional style, this product also features improved sensor operation. Facility managers can also adjust the metering flow time from a minimum of 10 seconds, for an educational environment, for example, up to a maximum of three minutes for healthcare environments where code requires timed hand washing. **Circle 391**

### 3 VICTORIA + ALBERT

Pescadero  
[www.vandabaths.com](http://www.vandabaths.com)

#### Ride the Waves

With its dynamically undulating rim designed to create an asymmetrical wave, this freestanding bathtub resembles the sea. Made from a highly durable composition of finely ground volcanic limestone and high-performance acrylic resin, the material contains heat, and is both light and durable with an easy-to-maintain finish. **Circle 390**

**Judge's Comment:** "The material used to make this product is impressive. It is great to read that it is made of volcanic stone so that the experience of bathing can be warmer for longer."

### 4 MTIBATHS

Addison 5  
[www.mtibaths.com](http://www.mtibaths.com)

#### Compact, Yet Spacious

With its compact footprint and ergonomically-designed angles, this 58-in.-long bathtub easily fits into a standard 60-in. space with smaller 1-in.-thick walls, thanks to MTI's ESS material. This means users can enjoy a very generous interior bathing area, despite the compact size. **Circle 389**

**Judge's Comment:** "Great retrofit for remodeling! Love that it fits into a 60-in. space."



HANSGROHE



BLANCO

**HANSGROHE**

ShowerSelect Trim  
[www.hansgrohe.com](http://www.hansgrohe.com)

**A Nice Touch**

With the touch of a button, users can toggle between the handshower and showerhead with this ADA-compliant shower system. Available in square or round shapes, the thermostatic trims come in chrome and brushed nickel finish. **Circle 388**

**Judge's Comment:** "Excellent, simple to understand design. It's great that Hansgrohe considers water as a limited resource and this fact is understood in the design development of their products."

**BLANCO**

IKON Single Bowl Apron Front Sink  
[www.blanco.com](http://www.blanco.com)

**A First for Granite Composite**

Introducing the first true granite composite apron front kitchen sink, the material combines a high level of durability and resilience with a trendy aesthetic. Available as a traditional wide radius and robust 1.5-in. rim. **Circle 387**

**Judge's Comment:** "Beautiful sink in a trending style!"

## The look that works in British Columbia.



Guildford Town Centre Expansion, Phase II, Surrey, British Columbia  
**ARCHITECT:** Musson Cattell Mackey Partnership, Vancouver, British Columbia  
**THE LOOK THAT WORKS:** An innovative, custom-designed mounting system allowed for easy installation of the 88 flat louver sections on a curved surface.

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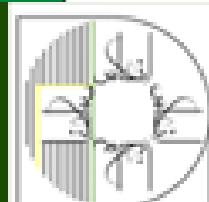
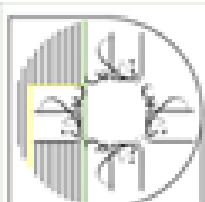
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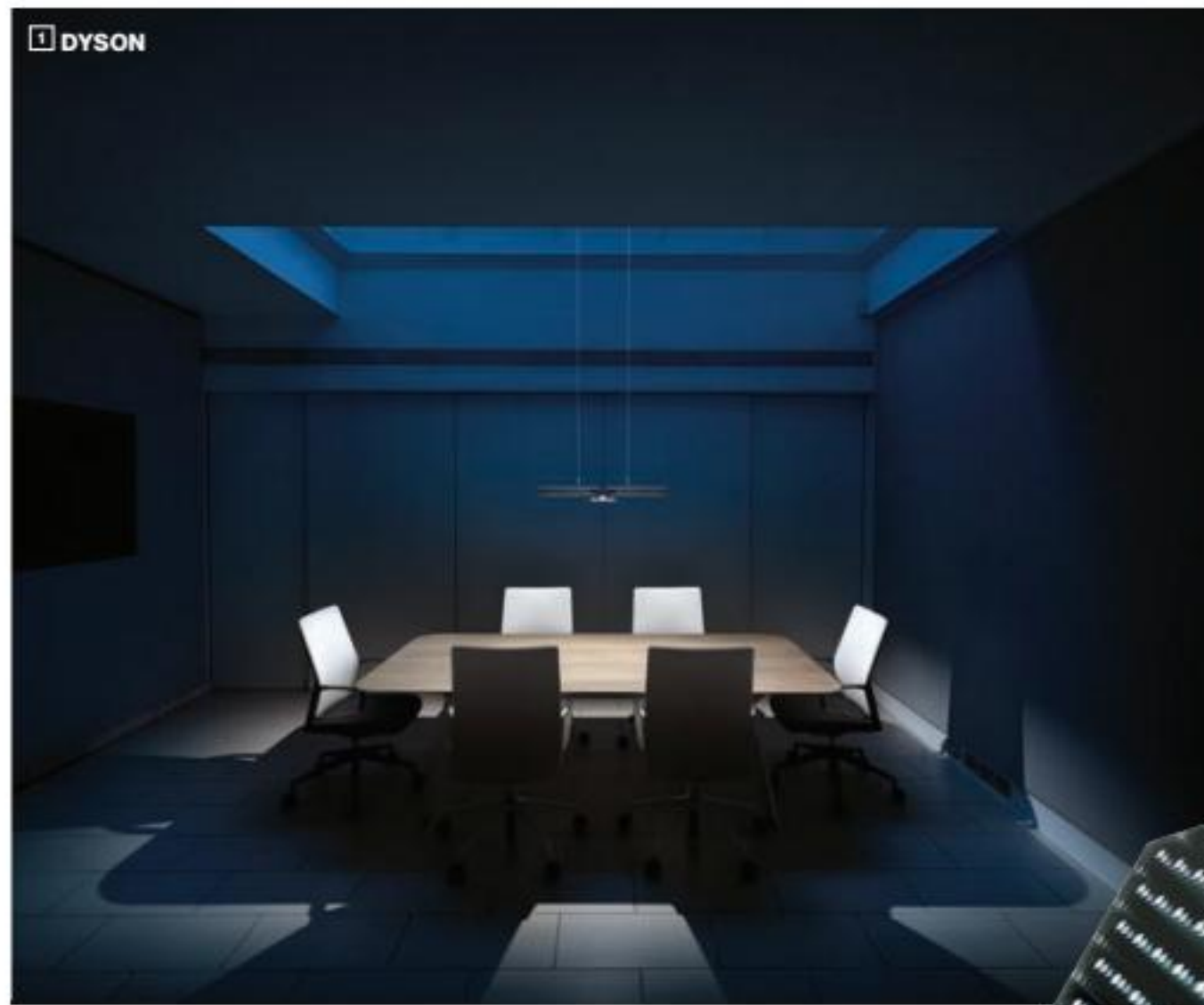
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1 DYSON

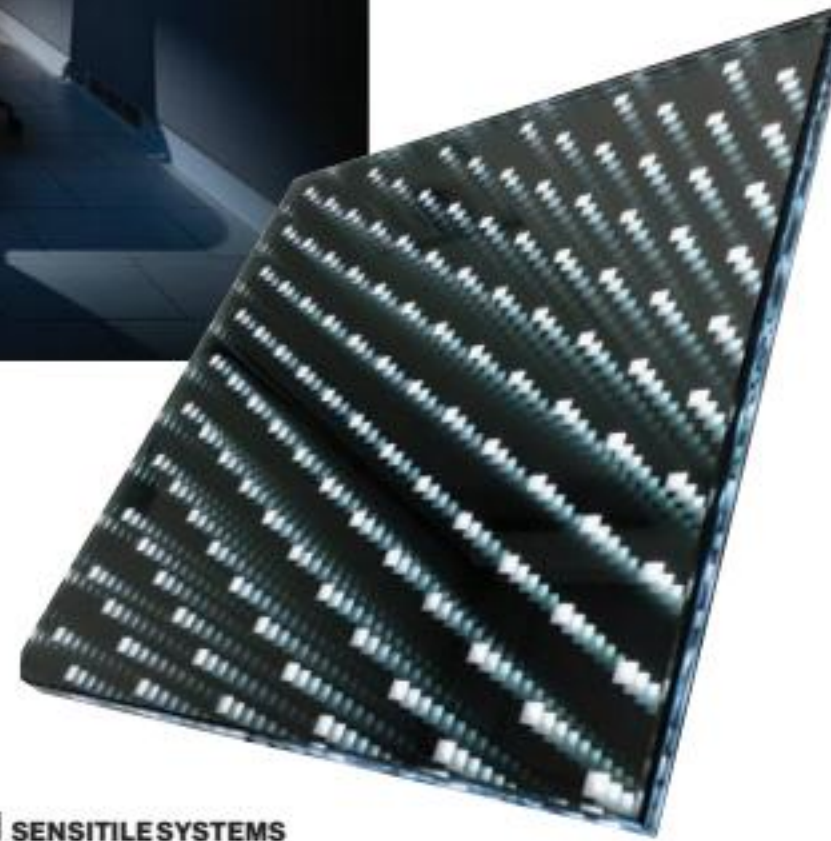


3 DMF LIGHTING

**Judge's Comment:** "Incorporating 3M optics technology into attractive, efficient lighting is a brilliant and intelligent design feature."



2 HUBBELL LIGHTING



4 SENSITILE SYSTEMS



5 HUMANSCALE

## Interior Lighting

**1 DYSON**  
Cu-Beam Suspending Lights  
[www.dyson.com](http://www.dyson.com)

### Cool Operator

Suspending lights combine a single, high-powered LED with heat-pipe technology to create controlled illumination that's able to keep its cool. A bubble-optic lens in the uplight produces a wide pool of light across ceilings, while custom-engineered downlight lens outputs a targeted pyramid of light over task surfaces. **Circle 386**

**Judge's Comment:** "A very innovative product."

**2 HUBBELL LIGHTING**  
Kurt Versen 3-in. Round and Square LED  
[www.hubbellighting.com](http://www.hubbellighting.com)

### Really Recessed

Designed for both new and existing ceilings seeking architectural grade luminaire, a patent-pending Universal Installation Plate fully protects the ceiling during LED fixture installation. These apertures are ideal for deeply shielded recessed products. **Circle 385**

**Judge's Comment:** "Simple and elegant."

**3 DMF LIGHTING**  
OneFrame – DRDHNJD Recessed LED Downlight  
[www.dmflighting.com](http://www.dmflighting.com)

### A Floating Innovation

As a Lightfair International Technical Innovation Award and Recessed Downlight Category Award winner, this product features a floating height module to ensure perfect alignment with varied ceiling thicknesses, making the unique downlight housing apparatus well suited for multifamily construction. With a two-hour fire rating, the downlight helps meet code requirements while delivering a high color rendering index of 93+. **Circle 384**

**Judge's Comment:** "I'm not aware of any other product that does this with flanges for multiple depths of ceilings."

**4 SENSITILE SYSTEMS**  
Celeste  
[www.sensitile.com](http://www.sensitile.com)

### To Infinity and Beyond

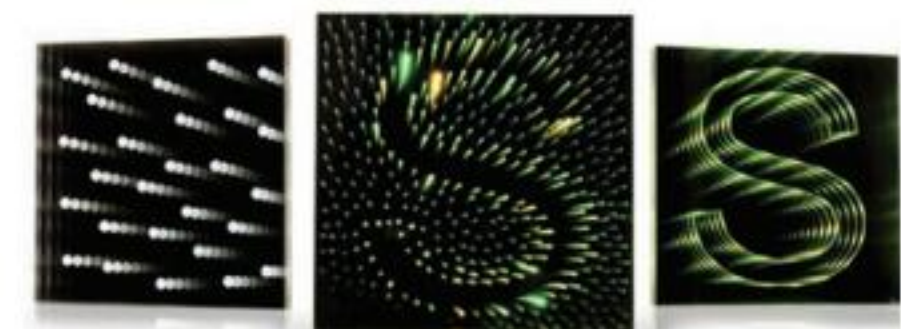
Celeste panels create the impression of an infinity mirror in self-contained unit. With LED panel lights as standard (though projection lights and even daylight can be used, instead), the panels can be used to create signage and displays with a unique, 3D visual impact. **Circle 383**

**Judge's Comment:** "This is a fun product for very specific applications."

**5 HUMANSCALE**  
Vessel  
[www.humanscale.com](http://www.humanscale.com)

### Glare-Free Lighting

Developed in close collaboration with physicists and optical engineers, this Todd Bracher-designed hanging pendant takes glare-free lighting to a new level. Combining cutting-edge functionality with a designer look, the pendant utilizes unique materials and a patented design. **Circle 382**



◀ Variations in material thicknesses can help achieve a range of delicate-to-bold effects.



# ArcheType™ X

Kim Lighting is proud to announce the new LEAR™ (Light Engine Adjustable Ready) module, a concept that brings unparalleled flexibility to the lighting industry. By incorporating this latest design, Kim Lighting has developed the first outdoor luminaires with independently adjustable LED emitters. We call this concept theType X distribution. X is whatever you want it to be.

- LED modules rotate 355 degrees with 70 degrees of tilt for maximum flexibility
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type X distribution™  
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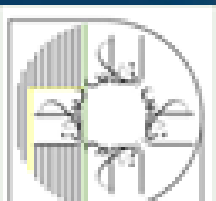
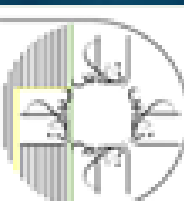
<http://www.kimlighting.com/type/>

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► Lumen output remains steady for 90 minutes and optional impact-resistant shield used for wash-down locations.



1 HUBBELL LIGHTING



2 JUNO LIGHTING / ACUITY



3 ARMSTRONG CEILING SOLUTIONS



4 JUNO LIGHTING / ACUITY



5 JUNO LIGHTING / ACUITY

## Interior Lighting

### 1 HUBBELL LIGHTING

Dual-Lite Dynamo Series NEMA 4X  
[www.dual-lite.com](http://www.dual-lite.com)

#### Install and Forget It

With an advanced battery that can last two to four years longer than others frequently used in emergency lighting, the Dynamo is built for rugged environments such as those in the food-processing industry. **Circle 381**

**Judge's Comment:** "I like that you can pretty much install and forget it for a long time—very helpful for those overburdened on the maintenance side."

### 2 JUNO LIGHTING / ACUITY

DanaLite FlexConnect Linear LED Luminaires  
[www.junolightinggroup.com](http://www.junolightinggroup.com)

#### Linear Thinking

Delivering up to 425 lm/ft., DanaLite luminaires offer flexible convenience with the performance of an architectural luminaire. A patent-pending optical pigment impregnated into the silicone encapsulation, along with LED binning, helps ensure reel-to-reel color consistency. **Circle 380**

**Judge's Comment:** "DanaLite delivers a new dimension: indoor/outdoor use, field cutting, 425 lm/ft. and many dimming options."

### 3 ARMSTRONG CEILING SOLUTIONS

Axiom Direct and Indirect Light Coves  
[www.armstrongceilings.com](http://www.armstrongceilings.com)

#### Bringing Consistency to Cove Design

Axiom light coves bring cove and fixture design together, for an integrated solution that offers consistent fit and finish. The coves are manufactured from extruded aluminum in a range of sizes and finishes and have been designed to work with specific fixtures from other manufacturers for assured performance. The coves also are up to 90% faster to install than traditional stick-built models. **Circle 379**

**Judge's Comment:** "This product helps bring back cove lighting done right! It's great to see ceiling and luminaire manufacturers working together."

### 4 JUNO LIGHTING / ACUITY

Aculux 4-in. LED Precision Recessed Adjustable  
[www.junolightinggroup.com](http://www.junolightinggroup.com)

#### Packs a Punch

With an aperture of only 4 in., this fixture has an output of up to 3200 lm, thanks to advanced LED technology that's matched with high-performing optics and a proprietary thermal-management system. Geared aiming is capable of 370-degree rotation and 45-degree tilt, and field-interchangeable optics allow for 10 beam spreads, from 12 degrees to 60 degrees. **Circle 378**

**Judge's Comment:** "Very bright for a 4-in. aperture. Beam and dimming options offer design flexibility."

### 5 JUNO LIGHTING / ACUITY

Aculux Low-Profile 3-1/4-in. LED Recessed Adjustable  
[www.junolightinggroup.com](http://www.junolightinggroup.com)

#### It's Shallow and That's a Good Thing

With a 4-in.-deep housing, this low-profile luminaire can fit into the space-constrained plenums that can be common in multi-family residential and hospitality projects. It also can deliver up to 2000 lm, in both downlight and adjustable-aiming configurations. **Circle 377**

**Judge's Comment:** "The 2000-lm aperture provides a little higher than normal ceilings with good light."



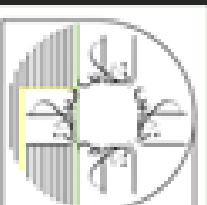
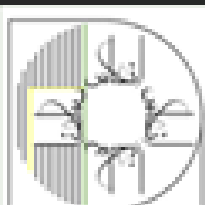
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1 LITTMAN BRANDS CONTRACT



2 STARFIELD LIGHTING AUTOMATION

◀ The scalable system can be expanded up to 64 zones and recalibrates continuously, providing greater user satisfaction and greater efficiency savings.



3 JUNO LIGHTING / ACUITY



4 MAXLITE



5 JUNO LIGHTING / ACUITY



6 JUNO LIGHTING / ACUITY



**Judge's Comment:**  
"This can definitely generate energy savings by bringing simplified building automation system concepts to the scale and the simplicity necessary for a restaurant owner to use."

7 LEVITON

## Interior Lighting

### 1 LITTMAN BRANDS CONTRACT

ARCHETTO  
[www.littmanbrands.com](http://www.littmanbrands.com)

#### Light that Dances

Designed to create a representation of sound, the Archetto kinetic hanging LED light sculpture features 48 motors to synchronize the movement of 1-in. glass tubes along with a color-changing RGBA display, based on the election of one of a number of pre-programmed patterns. The design was inspired by the fluid motion of a musician playing a violin or cello. **Circle 376**

**Judge's Comment:** "It's unique and elegant for a very specific location."

### 2 STARFIELD LIGHTING AUTOMATION

IRIS Intelligent Room Integration System  
[www.starfieldcontrols.com](http://www.starfieldcontrols.com)

#### Bringing Extra Smarts to Lighting

The IRIS lighting-control system brings together daylighting and occupancy sensing into a single package, with artificial intelligence to adjust lighting based on user patterns, not just the light levels detected by ceiling-level sensors. **Circle 375**

**Judge's Comment:** "A daylight-harvesting plug-and-play product is exactly what building owners need to benefit from LED technology."

### 3 JUNO LIGHTING / ACUITY

Juno 4-in. Internally Adjustable LED Downlights  
[www.junolightinggroup.com](http://www.junolightinggroup.com)

#### Color, Engineered

This high-performance fixture brings new flexibility to accent lighting, with a range of field-interchangeable optics, beam controls and even trims, all designed to work with a single housing. **Circle 374**

### 4 MAXLITE

Warm-on-Dim BR30 Lamp  
[www.maxlite.com](http://www.maxlite.com)

#### Warmth of Dimming

Featuring its Warm-on-Dim technology, this lamp shifts from 3000K to 2200K as it dims; the 9-W lamp produces 650 lm. **Circle 373**

### 5 JUNO LIGHTING / ACUITY

Aculux 3¼-in. Black Body Dimming/Tunable White  
[www.junolightinggroup.com](http://www.junolightinggroup.com)

#### Next-Generation Performance

With both black-body dimming and tunable-white technology in a single package, this fixture offers exceptional flexibility while delivering up to 1000 lm. **Circle 372**

### 6 JUNO LIGHTING / ACUITY

Indy Trimless Hyperbolic Downlight  
[www.junolightinggroup.com](http://www.junolightinggroup.com)

#### Fit and Trim-less

This update to the hyperbolic-reflector design creates a fixture that blends in seamlessly with a drywall ceiling. The downlight allows for clean-lined ceilings, and the hyperbolic reflector offers both high-efficiency light extraction and a low-brightness aperture. **Circle 371**

### 7 LEVITON

Lumina Gateway Wireless Management Eco-System  
[www.leviton.com](http://www.leviton.com)

#### Standalone or Full System Dimmer

Available as a standalone, or as part of a wireless automation system, this product works well where scalable wireless energy management systems are desired. **Circle 370**





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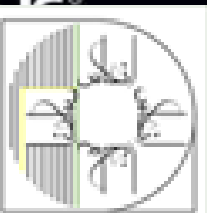
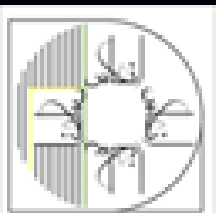
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1 HUBBELL LIGHTING



2 LUMINIS ECLIPSE



3 LUMINIS LUMISTIK

## Exterior Lighting

### 1 HUBBELL LIGHTING

KIM Lighting ArcheType X Site/Area  
[www.kimlighting.com](http://www.kimlighting.com)

#### User-Determined Lighting Distribution

Billed as the first and only suite of architectural outdoor luminaire products with user-defined lighting distributions, this maximum economy, precision illumination suite of SSL suite delivers a high level of performance and control. For example, beams can be targeted to highlight traffic lanes, pathways or walls while minimizing boundary lighting trespass without the need for external louvers or shields. **Circle 369**

**Judge's Comment:** "A very elegant and efficient product. It has the possibility of being used in many different environments."

### 2 LUMINIS

Eclipse Mini Family  
[www.luminis.com](http://www.luminis.com)

#### An Exterior Lighting Buffet

Offering various pole and wall attachments, and different shade, strut and louver options, this collection of fixtures combines functionality with a decorative design in a 6-in. footprint. A variety of bollards, pendants, post-top and wall mount luminaires round out the exterior architectural/area lighting collection. Designed to eliminate light trespass, full cutoff is available in every model. **Circle 368**

**Judge's Comment:** "The Eclipse is a good-looking exterior fixture that fills practical needs through offering of a wide range of products."

### 3 LUMINIS

LumiSTIK  
[www.luminis.com](http://www.luminis.com)

#### Illuminate with Luminis

Designed to enhance public spaces, this suite of site lighting products features a wide range of heights in columns, bollards, pendants and wall-mounted luminaires. Dark sky friendly with full cutoff, the products feature a unique clear lens with an integral optic system. Designed to provide uniform 360-degree uniform illumination, an extruded aluminum base and high-impact acrylic diffuser deliver an attractive aesthetic. **Circle 367**

**Judge's Comment:** "It is grounded in architectural roots and could substantially impact the interior environment."



Photo courtesy of JD Stairs

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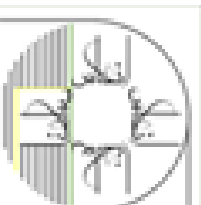
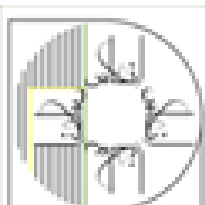
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## Elevators



**Before and After:**  
All elevators are not created equal. Ascend combines aesthetics with cab protection, as seen here in this retrofit at the Pines of Mt. Lebanon, an assisted living community near Pittsburgh.

### 1 INPRO CORPORATION

Ascend Elevator Protection Systems  
[www.inprocorp.com](http://www.inprocorp.com)

#### Elevator Renovation Kit

With this pre-configured kit, elevator interior retrofits are a breeze. The company's wall panel systems, handrails and wall guards combine to deliver not only a well-protected cab, but a nice-looking elevator. A selection of four ceiling and lighting options complete the package. The retrofit kit includes a 99-year warranty. The system, (specifically the Ascend Zenith Cab) was also installed at the University of North Carolina-Charlotte. **Circle 366**

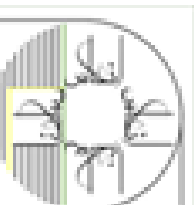
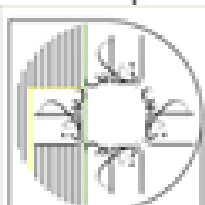
**Judge's Comment:** "Going from one floor to the next need not be a mundane task. Inpro delivers on the aesthetics."



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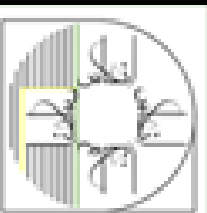
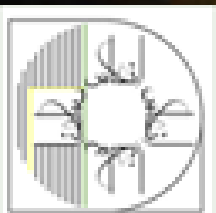


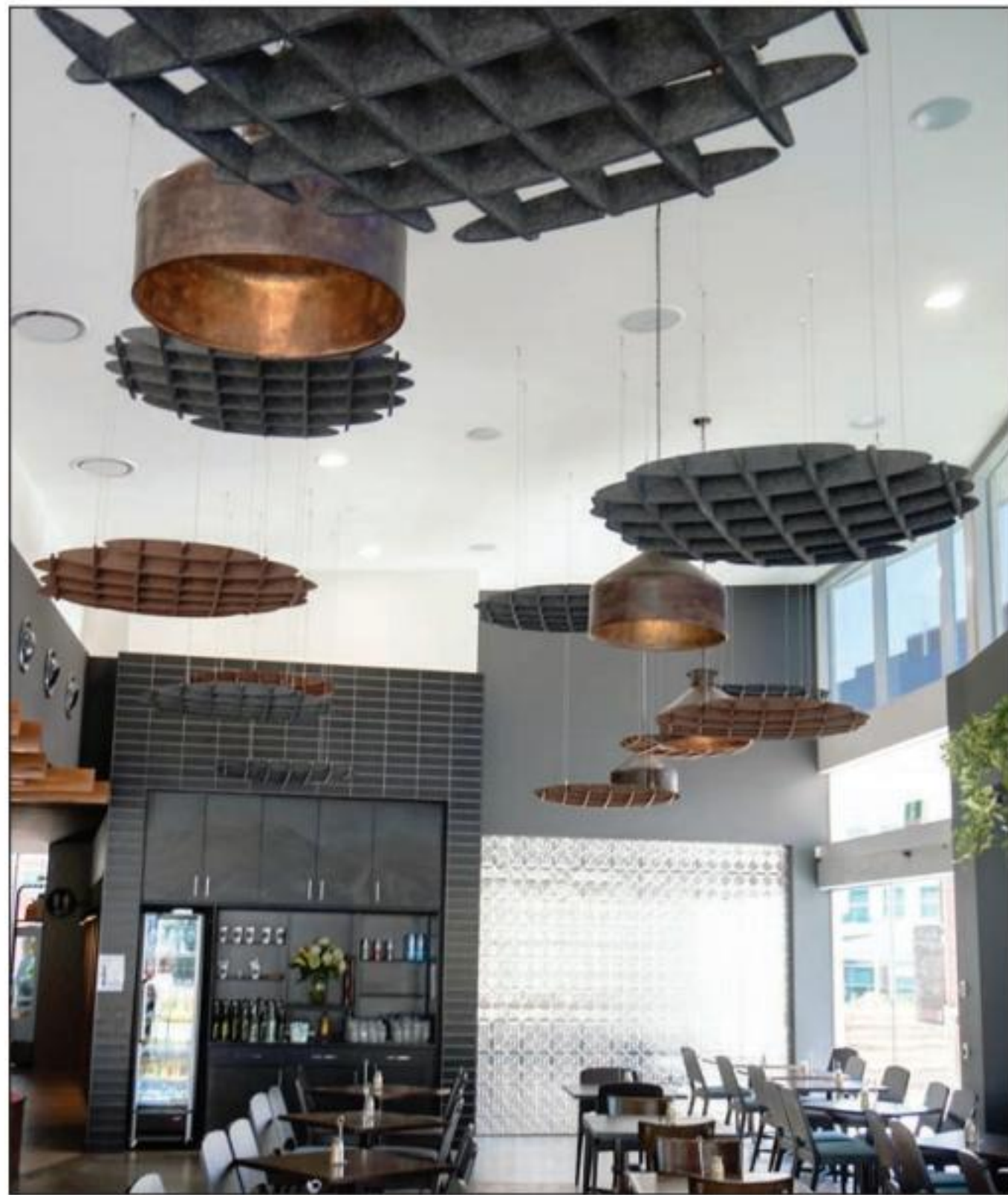
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1 BARESQUE



2 ARMSTRONG CEILING SOLUTIONS



3 WINDFALL LUMBER

◀ Tributary cladding is intended to bring warmth to large and small interior spaces.

## Surfaces

### 1 BARESQUE

Zintra Acoustic Clouds  
[www.baresque.us](http://www.baresque.us)



**In the Clouds Above**  
 Zintra Acoustic Clouds add 3-D texture to ceilings, whether suspended or directly adhered to it, reducing the bounce-back of sound that happens so often in commercial hard-surface environments. Comprised

of grid-like "blades" made of the same polyester felt as Zintra Acoustic Panels, the Clouds are available in four different designs, with standard diameters at 43 to 47-in., depending upon the shape—square or circle. Clouds are Class A fire rated and provide a noise reduction coefficient of at least 0.9. Ideal for office, hospitality and healthcare environments. **Circle 365**

**Judge's Comment:** "While I think the idea of these acoustic clouds is certainly not new, the ability to use the same product as a ceiling and wall acoustic solution I think is novel."

### 2 ARMSTRONG CEILING SOLUTIONS

Total Acoustics Ceiling Panels  
[www.armstrong.com](http://www.armstrong.com)

#### Totally Awesome Ceilings

Total Acoustics Ceiling Panels feature sound absorption and sound blocking, with the ability to both absorb unwanted sound and block noise from traveling into adjacent spaces. Available for Armstrong product lines, including Ultima, Calla, Lyra High CAC, Cirrus, Fine Fissured, Mesa, Canyon and School Zone. Ideal for high-traffic or multipurpose areas where maximum sound absorption and sound blocking are needed to keep noise levels down and prevent disruption to adjacent spaces, Total Acoustics ceiling products feature an NRC of 0.80 or higher and a CAC of 35 or higher. Ceiling products that feature Total Acoustics performance are made from anywhere between 46% to 86% recycled content and are 100% recyclable at the end of their service life through the Armstrong Ceiling Recycling Program. The ceilings are ideal for flexible workspaces where a mix of private offices, quiet concentration areas and collaboration areas share the same space. **Circle 364**

**Judge's Comment:** "Bring me more—a winner on three fronts: substantially cuts noise in today's open environments in a form that looks great, and is worthy of that itself—and it has a very sustainable composition. Boom!"

### 3 WINDFALL LUMBER

Tributary Cladding  
[www.windfalllumber.com](http://www.windfalllumber.com)

#### Wood Look All Around

Tributary Cladding is intended to bring warmth and visual interest to interior spaces large and small. The products is a covering for walls, ceilings and fixtures including bar fronts and cash wraps. Named for rivers of the Pacific Northwest, the collection includes five color palettes, each with three variations of color on three thicknesses with a tongue and groove profile. Made from a solid, 100% native Pacific NW, FSC-certified wood, the active staining agent in Tributary Cladding features zero VOCs and the finish is a low-VOC waterborne clear coat. Dimensions are 0.4375-in., 0.625-in. and 0.75-in. thick × 3.5-in. wide, with varying lengths 3-ft. to 6-ft. **Circle 363**

**Judge's Comment:** "Wood wall cladding have become very popular to bring that warm rustic feel, but this one has some added benefits. The rounded refined panels look created like furniture and the colors are more subdued and timeless."

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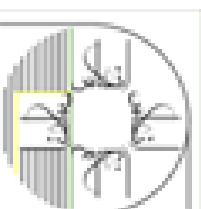
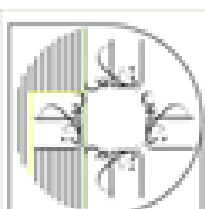
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Fire and Nice.

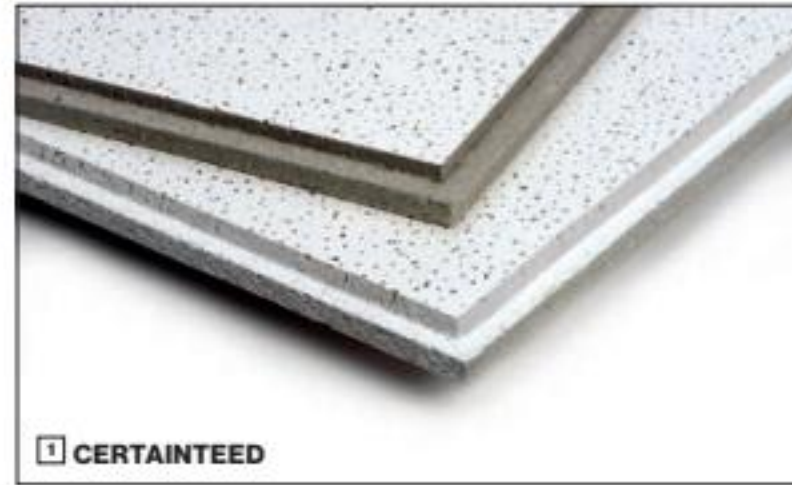
# aluflam

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Systems**

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1 CERTAINTEED



3 ARMSTRONG FLOORING



2 INPRO CORPORATION



## Surfaces

### 1 CERTAINTEED

Sereno Fine Fissured  
[www.certainteed.com](http://www.certainteed.com)

#### Block the Sound

Sereno Fine Fissured robust line of acoustic ceilings, brings a high rating of 0.75 NRC/40+ CAC to a room and room-to-room sound blocking capabilities for privacy, it is ideal for education and office environments. Made with 70% pre-consumer recycled content, the ceiling is available in white with six different combinations of size and edge detail, including trim, reveal and narrow reveal. It complies with LEEDv4 for K-12. **Circle 362**

**Judge's Comment:** "This shows good installation performance, and the fact that it contains the HPD, EPD and that 70% is recycled content, is great."

### 2 INPRO CORPORATION

Aspex Printed Wall Products  
[www.inprocorp.com](http://www.inprocorp.com)

#### Walls with a Purpose

Aspex Printed Wall Products not only protect walls they cover, but can display high-resolution graphics that enhance the environment as well. Made with the high-impact durability of IPC Rigid Sheet, it features high-stain resistance and cleanability. It

turns walls into a powerful canvas for any messages or motivation. **Circle 361**

**Judge's Comment:** "This product allows branding and identity to also be functional while greatly improving the aesthetics of wall protection."

### 3 ARMSTRONG FLOORING

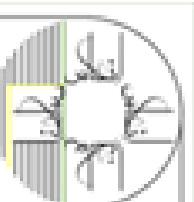
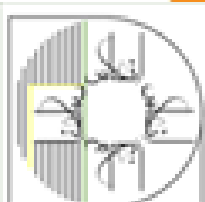
Natural Creations with Diamond10 Technology  
[www.armstrong.com](http://www.armstrong.com)

#### Interior Performance Elevated

Natural Creations with Diamond10 Technology is low maintenance, no wax floor was designed for the retail market. From specialty stores and restaurants to mass merchants, grocery stores, drug stores and department stores, Natural Creations with Diamond10 Technology was designed to achieve a longer lifespan, with fewer replacement costs and lower maintenance, equating to a lower cost of ownership. Mix and match thousands of design possibilities, including the three collections within Natural Creations Luxury Flooring, Arbor Arts, EarthCuts and Mystix—all part of Armstrong Continuum Solutions. **Circle 360**

**Judge's Comment:** "The product's durability complements its aesthetic."

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# Breaking the Curve

Architects designing Legacy Junior High School faced a challenge: create a space to inspire and excite students. Through lively community collaboration, the project came together, incorporating sinuous and sophisticated green metal contours hip enough to intrigue students.

Visit [www.mbc.com/curve](http://www.mbc.com/curve) for more information.



**PROJECT:** Legacy Junior High School

**LOCATION:** Layton, Utah

**ARCHITECT:** VCBO Architecture

**CONTRACTOR:** All Metals Fabrication

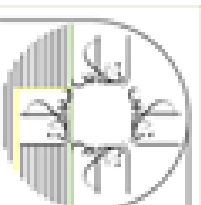
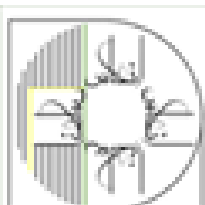
**PANEL PROFILE:** PBU (Tundra / Laurel Green / Galvalume Plus®), Artisan (Tundra), Flat Sheet (Tundra / Laurel Green)

**MBCI**  
**40 YEARS**  
1976-2016

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## Wood and Composites



### Judge's Comment:

"I like two aspects of this project: 1) It helps add resiliency in wood or wood frame construction. 2) It enables greater use of composite wood elements, lessening the impact on foresting."

1 SIMPSON STRONG-TIE



2 CERTAINTEED

### 1 SIMPSON STRONG-TIE

Strong-Wall Wood Shearwall  
[www.strongtie.com](http://www.strongtie.com)

### Vertical Strength

Specially designed, prefabricated, engineered-wood panel helps structures resist lateral forces such as those created by earthquakes and high winds. The Strong-Wall Wood Shearwall has been evaluated to the 2015 International Building Code (IBC) and can help resist these forces efficiently. **Circle 359**

### 2 CERTAINTEED

Cedar Impressions Individual 5-in. Sawmill Shingles  
[www.certainteed.com](http://www.certainteed.com)

### Cedar Indeed

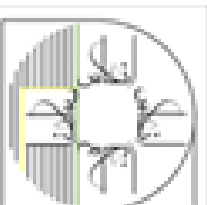
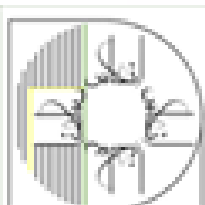
Capturing the beauty of natural cedar without the necessary upkeep of the real wood, individual 5-in. Sawmill Shingles offer a patented pending design that replicates the authentic appearance of real wood cedar shingles. The shingles feature a TrueTexture finish that's designed and tested to withstand hurricane force winds, a 1-in. Panel Projection, and 0.9-in. thick product. **Circle 358**

**Judge's Comment:** "Cedar Impressions is one of those products where the imitation provides a shedload of value over the genuine. In terms of durability and consistency, not to mention aesthetic longevity, this product trumps real wood."

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Durable phenolic core provides greater protection than plate or polyethylene cores.

 **NFPA 285 / UBC 26-9: Fire Resistance**

No special FR composition required. Standard composition meets requirements.

 **ASTM D1929: Fire Resistance**

Meets or exceeds ignition temperature of nearly all continuous run production MCMs (including FR).

 **ASTM E283, E330, E331: Air, Water, Structural**

Passed industry standards with shop-fabricated AND budget/time-friendly field-assembled systems.

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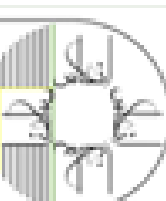


Wichita Airport - Parking Garage, Wichita, KS  
Representative: JD Day & Company  
Fabricator: Architectural Metals North America

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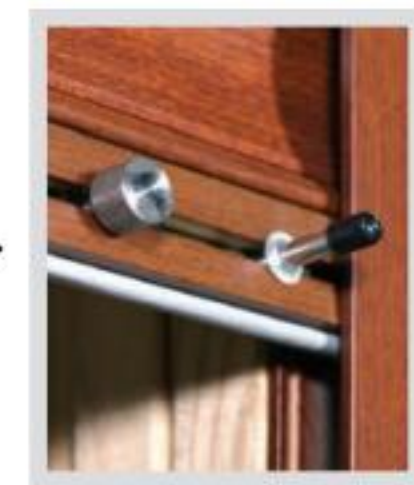




1 LACANTINA DOORS



2 OVERHEAD DOOR



**Judge's Comment:**  
"Heavily visited areas such as retail stores, pharmacies and hospitals often need the security that the Allura Shutter offers."



3 NANAWALL SYSTEMS



4 KROWNLAB

## Openings, Doors and Hardware

1 LACANTINA DOORS  
New Vinyl Folding System  
[www.lacantinadoors.com](http://www.lacantinadoors.com)

### In the Fold

LaCantina's Vinyl Folding system brings high-quality contemporary styling as it is designed to appeal to the needs of a broader market. It performs well in all environments, matches popular vinyl window packages and is ideal for home renovations or new construction. Featuring contemporary styling, a narrow 2.9375-in. stile and rail profile, multi-point locking, exclusive new hardware package available in bronze and stainless steel finish and standard dual glazed Low-E glass, LaCantina Vinyl is available in standard and custom size up to 8-ft. tall and 18-ft. wide in tan or white vinyl. **Circle 357**

**Judge's Comment:** "Stylish, durable and secure."

2 OVERHEAD DOOR  
Allura Rolling Shutter Model 653  
[www.overheaddoor.com](http://www.overheaddoor.com)

### Shutter to Think

The Allura Shutter is a next generation light-duty rolling door solution that is aesthetically versatile while providing a compact, space-saving design, making it perfect for installations with limited side room and headroom. Finish color options include powder coat colors to match bronze or silver anodized aluminum finishes, 197 RAL powder coat color selection, custom color matching powder coat and a selection of six wood grain powder coat color patterns. **Circle 356**

3 NANAWALL SYSTEMS  
FoldFlat  
[www.nanwall.com](http://www.nanwall.com)

### Beyond the Glass

Available in both aluminum and wood-framed options, FoldFlat installations allow expanded functional and aesthetic possibilities, virtually eliminating the barrier between spaces and allowing for full usage of available square footage. It also offers single-handed operation and moves smoothly with little effort and has tamper-resistant locks, as well as energy efficient design, to keep the cold outside while maintaining warmth inside. Each opening glass wall system has specialized seals and panel design to provide superior humidity and

moisture control and extreme weather resistance for all climates and seasons. **Circle 355**

**Judge's Comment:** "Moveable and transparent walls provide collaborative learning environments."

4 KROWNLAB  
The Oden Sliding Door Hardware System  
[www.krownlab.com](http://www.krownlab.com)

### Exposed Track

Featuring the patent-pending Tru-Leveling System that provides a full 0.25-in. of adjustment at each mounting point, even after installation, the Oden Sliding Door Hardware System features an aluminum track cover that truly conceals the fasteners. **Circle 354**

**Judge's Comment:** "It was a pleasure to go through this submittal. It was well-written, complete and told a convincing story."



5 THE BILCO COMPANY



6 NANAWALL

5 THE BILCO COMPANY

BIL-Guard 2.0  
[www.bilco.com](http://www.bilco.com)

**Fall Protection**

A fixed railing system that provides a permanent means of fall protection around roof hatch openings, the BIL-Guard 2.0 boasts aluminum construction for increased strength and rigidity, a redesigned self-closing hinge and positive latching system and stainless steel hardware. Compliant with OSHA fall protection standards, the BIL-Guard 2.0 features a mounting system that does not penetrate the roofing membrane. **Circle 262**

**Judge's Comment:** "Roof hatch provides safety and is compliant with OSHA standards."

6 NANAWALL SYSTEMS

PrivaSEE  
[www.nanwall.com](http://www.nanwall.com)

**See and Slide**

With no floor track, PrivaSEE is an all glass single track sliding system specifically engineered for enhanced acoustical separation, allowing architects and designers to control sound transparently. **Circle 261**

**Judge's Comment:** "Sound control offers audible privacy for commercial applications where noise often serves as a distraction."



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**THE 35 COLLECTION**

Three new performance products from creative partner frog design celebrate the 10th anniversary of a modern classic.



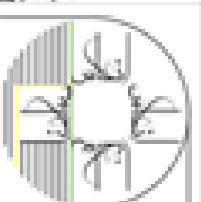
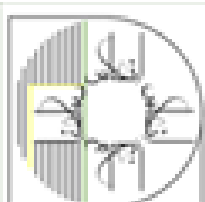
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1 INDOORSKY



2 LUMOS SOLAR



3 MECHOSYSTEMS

**Judge's Comment:** "LSX is bridging the gap between architecture and energy."

◀ The MechoSystems' Wireless Daylight Sensor is small, compact, and does not require any batteries/cables for its energy collection or for the ultra-low power EnOcean wireless communication.



## Solar Control and Shading, Site-Generated Energy

### 1 INDOORSKY

Daylitter Shading System  
[www.indoorsky.com](http://www.indoorsky.com)

#### Custom Shading

The Daylitter Shading System reduces solar heat gain through the use of conventional solar shade fabrics but not at the expense of daylight. Featuring operable fabric lightshelves with integral roller shades, the system expands the daylight zone within the building by bouncing glare-free daylight onto the ceiling – or adjacent lightshelf. When used on sloping glass facades the Skylitter model provides the same benefits but with the added bonus of a unique aesthetic feature. Lightshelves may be up to 96 in. wide x 22 in. deep with deeper designs available through custom engineering.

Circle 353

**Judge's Comment:** "Where functionality meets aesthetics."

### 2 LUMOS SOLAR

LSX Module System  
[www.lumossolar.com](http://www.lumossolar.com)

#### Solar Control

A frameless solar module, the LSX Module System includes a completely engineered mounting solution allowing it to be easily integrated into new and existing architecture. The unique and proprietary through-bolting mounting method, which allows modules to be installed in virtually any configuration or orientation. The frameless design allows the gap between modules to be sealed, creating weatherproof installations. The system features integrated mounting and wire management that can be used in overhead applications to create beautiful and functional shade structures such as awnings, canopies, carports, etc. Circle 352



### 3 MECHOSYSTEMS

MechoNet Wireless Daylight Sensor and Controller  
[www.mechoshade.com](http://www.mechoshade.com)

#### Shading's Smart Control

The unobtrusive and controller system utilizes a special integrated solar-powered photosensor to monitor light entering the space through the curtainwall, then, via EnOcean RF communication technology, transmits data to a controller to move roller shades in small offices effortlessly. These devices seamlessly enable shades within the specified zone to move based on daylight present at window without additional hardware/sensors. Daylight information is sent by the wireless daylight sensor to a small wireless controller directly connected to the MechoNet data network, enabling shades in the space to move autonomously. Circle 351

**Judge's Comment:** "Check out the big brain on the roller shade!"

# MOVEMENT

***/ 'moʊvəmənt /***

*n.* What you hope for if a concept gets stuck between "Great idea!" and "How will we do that?" Our High Profile Series™ Ceiling System helps bring designs from possibilities to completed projects.

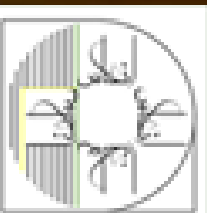
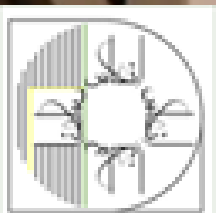
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Architectural

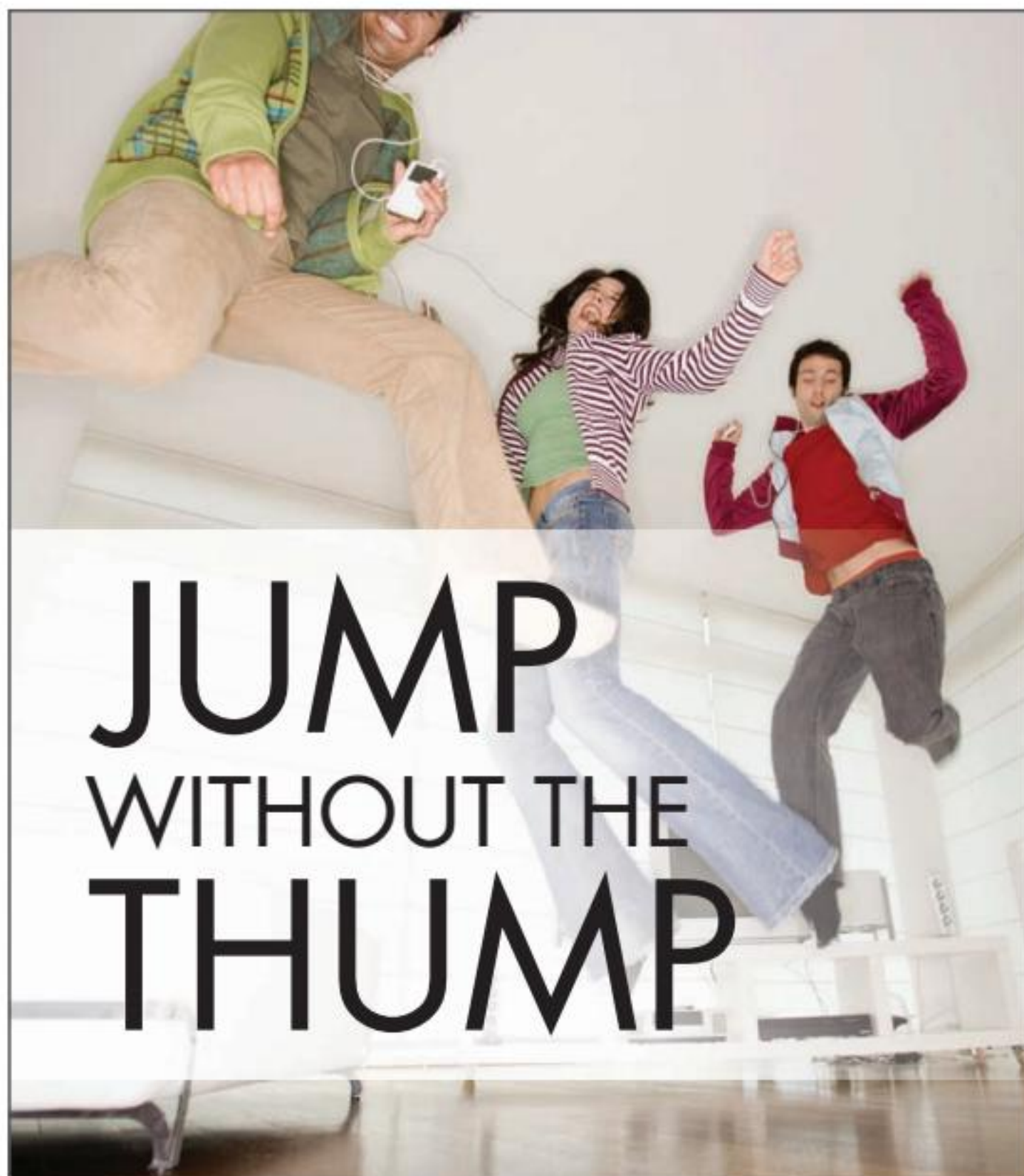
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**Now add sound control without adding floor height with our new *Acousti-Mat HP Series* of sound control mats.**

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## HVAC

### Judge's Comment:

**"Quieter is  
always better."**



1 AIRIUS LLC



2 MITSUBISHI ELECTRIC COOLING & HEATING

### 1 AIRIUS LLC

Airius Q Series Destratification Fan  
[www.airiusfans.com](http://www.airiusfans.com)

### Air Balancing Act

For facilities with up to 50-ft. ceilings, the Airius Q Series fan is the company's quietest destratification fan yet. Airius designed the quieter Q Series fan by creating an alternative motor mount, reducing the amount of air turbulence introduced at the intake. The Q Series fan, enclosed in a cylinder-shaped housing similar to the Airius Designer Series fans, also meets the needs of architecturally sensitive installations. **Circle 350**

### 2 MITSUBISHI ELECTRIC COOLING & HEATING

CITY MULTI L-Generation Air-source VRF System  
[www.mitsubishi-pro.com](http://www.mitsubishi-pro.com)

### Generation L

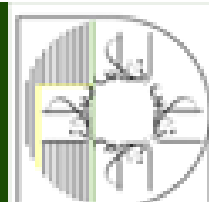
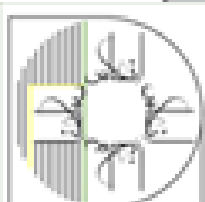
Featuring HexiCoil zinc-aluminum flat tube heat exchanger technology, the L-Generation Air-source Outdoor Unit offers significantly improved efficiency ratings. With single modules up to 14 tons and the ability to combine modules up to 30 tons, the L-Generation boasts an up to 30% smaller footprint than previous generations, making the system ideal for projects with tight mechanical spaces. Additionally, an improved high-ambient cooling operating range guarantees cooling operation up to 126°F. **Circle 349**

**Judge's Comment:** "New heat exchanger design could be a game changer in the VRF space."

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Concrete  
(Untreated)



Xypex Crystallization  
(Initiated)



Xypex Crystallization  
(Mature)

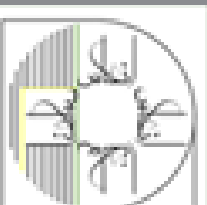
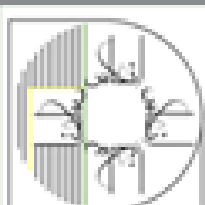
XYPEX integral crystalline technology waterproofs concrete foundation structures as they're poured and cannot be damaged during installation or backfilling. Unlike membranes, Xypex is added to the concrete at the time of batching avoiding application errors. This sustainable technology also contributes to LEED credits. **When you select Xypex Crystalline Technology**, you've chosen the best... more than 40 years of independent testing, experience in over 90 countries, unmatched product and service standards... *and still no equal.*

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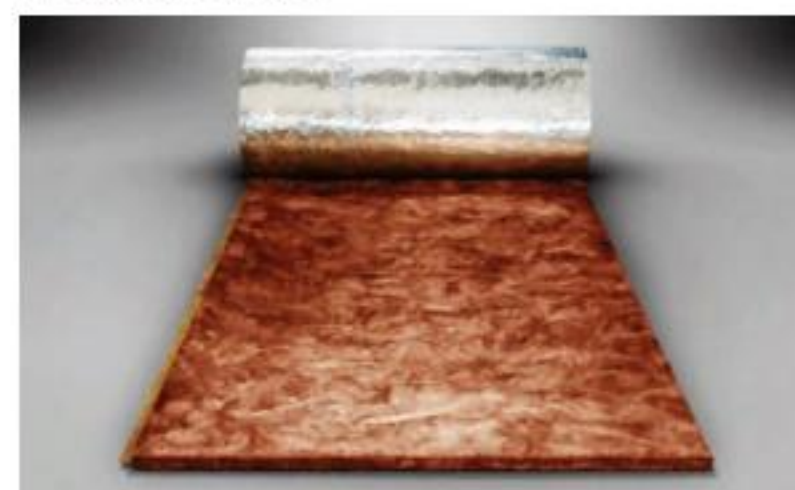
Circle 75



## Thermal and Moisture Protection



1 BENJAMIN OBDYKE



2 CERTAINTED

1 BENJAMIN OBDYKE, INC.

Slicker HP Rainscreen  
[www.benjaminobdyke.com](http://www.benjaminobdyke.com)

### Slick Protection

Slicker HP Rainscreen offers the benefits of a premium water resistive barrier and rainscreen in a single product solution. The rainscreen provides the highest level of moisture protection for an exterior wall by providing a 0.25-in. gap behind the siding, which eliminates the potential for mold in the exterior wall. **Circle 348**

**Judge's Comment:** "Simple, yet effective moisture protection."

2 CERTAINTED

SoftTouch Duct Wrap Insulation  
[www.certainteed.com](http://www.certainteed.com)

### Blanket of Insulation

SoftTouch Duct Wrap Insulation offers outstanding thermal properties that reduce unwanted heat loss or gain and condensation during system operation. This blanket-type insulation is used to insulate rectangular and round heating, ventilating and air conditioning ductwork. **Circle 347**



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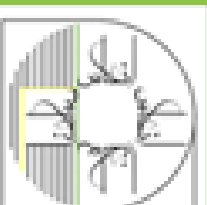
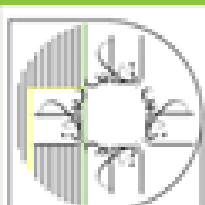
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Form

Inspired Product + Material Choices



**Leonard Koroski, FAIA, LEED AP**, Principal, Goettsch Partners, has a passion for renovation of historic structures, and has extensive experience in historical research, materials analysis and life safety and infrastructure improvements.



**Lisa Simeone, NCIDQ**, Owner, Simeone Deary Design Group, champions lifestyle and hospitality projects around the globe, delivering high-end luxury and forward-thinking authenticity through experiential design.



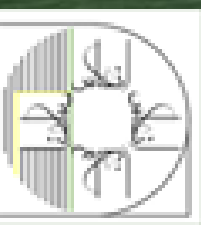
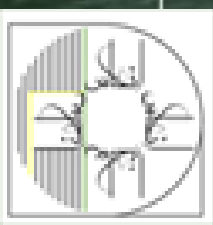
**Carrie Tolman**, Associate, Simeone Deary Design Group, is known for finding inspiration from the surroundings and integrating the history and culture of each environment with elements of nature, fashion and pop culture.



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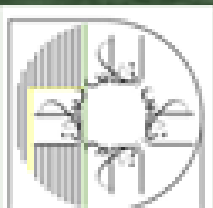
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### LondonHouse Chicago Chicago

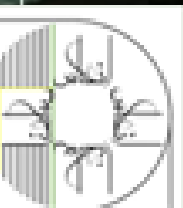
The 21-story, 390,000-sq.-ft. LondonHouse Chicago gives new meaning to the juxtaposition of old and new. Built on the site of Fort Dearborn, the hotel brings together an iconic 1923 building, originally built for the London Guarantee & Accident Co., and a new 85,000-sq.-ft. glass infill tower that hosts the hotel's lobby and public spaces. Designed for LEED-NC Silver, the 452-room, high-design luxury lifestyle hotel features 52 different room layouts to accommodate the 23-sided historic structure. Exterior restorations include the refurbishing and reproduction of 1000 cast-iron and wood windows, open balustrade rails and ornamental urns. Inside, communal spaces and guest rooms were designed to reflect the site's rich history—from the War of 1812 to the automotive inventions and flappers of the era in which the original building was built.



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#### EXTERIOR

Beyond the traditional tuckpointing and patching, the project team, including Goettsch Partners and façade engineering firm Klein and Hoffman restored all of the building's original limestone and specified functional custom windows to match the original openings—a task they studied very carefully before specification.

#### Windows

Double-hung, thermally improved windows feature an insulated low-E glass and custom historic perimeter trim.

**Graham Windows**  
[grahamwindows.com](http://grahamwindows.com)

#### Glass

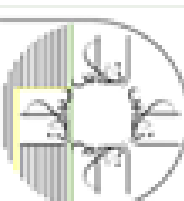
The new glass building filled a 55-ft. opening in the street wall, between two historic buildings. "We made sure the new glass building was compatible with the historic buildings on either side," said Koroski. Glass with optimal reflectivity was specified for floors 1-3. "We wanted to have greater transparency where public spaces are so when you're looking from the street, you can see what's going on inside."

**Viracon**  
[viracon.com](http://viracon.com)

#### Sawtooth Façade

Guest rooms grace floors 4-18 of the glass tower, and therefore Koroski wanted something more private, that would still provide a premium view of the Chicago River. With five rooms on each floor of the glass tower, the Goettsch team designed a sawtooth façade—brought to life by Schüco, Germany—to achieve a private bay for each room.

**Schüco**  
[schueco.com](http://schueco.com)





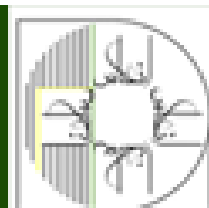
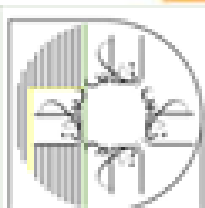
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**HOTEL LOBBY**

Because the mezzanine lobby is not the same space as the hotel's elevators, one almost has to look to find the front desk. "As a guest, there's nothing worse than when you can't find your way. We were very cognizant of this so during our space planning and interior architecture design, we created a cat walk and back wall for the lobby that mimics the original black marble and circle, octagonal and beaded diamond ceiling of the building's rotunda area," said Simeone. "The mirrored front desk reflects back, creating an envelope of a walkway so guests know exactly how to get to the front desk."

**Chandelier**

All public space lighting was custom-designed by Simeone Deary Design Group and brought to life by Alger-Triton. [alger-triton.com](http://alger-triton.com)

**Wood Flooring**

Wide plank custom wood flooring flanks the marble flooring.

**Carlisle Wide Plank Floors**  
[wideplankflooring.com](http://wideplankflooring.com)

**Millwork**

All millwork was custom by 555 International. [555.com](http://555.com)

**Area Rugs**

**Tufenkian Artisan Carpet**  
[tufenkiancarpets.com](http://tufenkiancarpets.com)

**Marble Flooring**

In order to achieve the look of a mirror in the black marble floor, Simeone Deary Design Group played with finishes – the shapes in the black marble are honed and the rest of the floor is shined.

**International Marble & Granite Supply Co.**  
[internationalmarble.com](http://internationalmarble.com)

**Furnishings**

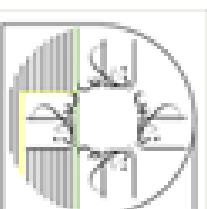
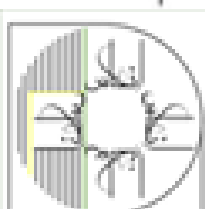
Concierge desk and coffee tables at sectional.

**Fleetwood Fine Furniture**  
[fleetwoodfinefurniture.com](http://fleetwoodfinefurniture.com)

In their design of the hotel's common spaces, Chicago's Simeone Deary Design Group brought Fort Dearborn back to life – juxtaposing the Native American with the British general.

**"It's the idea of structured and buttoned up next to organic and free flowing. We even selected a herringbone pattern for the floor in the lobby that was reminiscent of a feather."**

– Lisa Simeone, Simeone Deary Design Group







## WE DIDN'T CREATE THE CONFUSION. BUT WE CAN CLEAR IT UP.

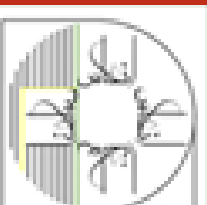
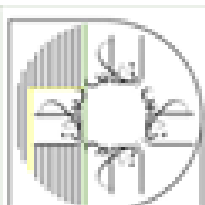


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#### PRODUCTS + MATERIALS

##### 01 Glazing

► **Graham Windows**  
Double-hung, thermally improved windows feature an insulated low-E glass and custom historic perimeter trim  
Circle 346

► **Viracon**  
Circle 345

► **Schüco**  
Sawtooth façade  
Circle 344

##### 02 Signage

► **Southwater Signs**  
Custom  
Circle 343

##### 03 Flooring

► **International Marble & Granite Supply Co.**  
Black Marble  
Circle 342

► **Carlisle Wide Plank Floors**  
Wide plank custom wood flooring  
Circle 341

##### 04 Furnishings

► **Fleetwood Fine Furniture**  
Concierge desk and coffee tables  
Circle 340

► **Tufenkian Artisan Carpet**  
Area rugs  
Circle 339

► **Alger-Triton**  
Custom chandeliers and light pendants (designed by Simeone Deary Design Group)  
Circle 338

► **Charter Furniture**  
Barstools and dining chairs  
Circle 337

► **Pacific Contract Source**  
Dining tables  
Circle 336

► **05 Wallcoverings**  
► **MDC Wallcovering**  
Circle 335

► **Kevin Barry Fine Art Associates**  
Circle 334

► **Maya Romanoff**  
Circle 333

► **06 Millwork**  
555 International  
Circle 332

"The bar is at the top of the building, like a bird overlooking the city," said Carrie Tolman, associate, Simeone Deary Design Group. "The inspiration behind the lighting was the Peregrine Falcon, the official bird of Chicago, sitting in its nest, high above the city. In this bar, we created a cozy environment for people to come in and nest."

**"The bar is at the top of the building, like a bird overlooking the city."**

— Carrie Tolman, Associate, Simeone Deary Design Group

#### GUEST ROOMS

##### Wallcovering

The black wallcovering in the very right of the picture is inspired by the automotive boom of the 1920s, this wallcovering looks like black brick.

**MDC Wallcovering**  
mdcwall.com

##### Case Goods

The wood night stand and headboard are from Fleetwood Fine Furniture and black headboard fabric: Romo Group [www.romo.com](http://www.romo.com)

**Fleetwood Fine Furniture**  
[fleetwoodfinefurniture.com](http://fleetwoodfinefurniture.com)

##### Pendants

Custom-designed pendant lights by Simeone Deary Design Group and brought to life by Alger-Triton.

[alger-triton.com](http://alger-triton.com)

##### Furniture

Barstools by Charter Furniture  
[charterfurniture.com](http://charterfurniture.com)

Square dining tables by Pacific Contract Sources  
[pacificcontractsources.com](http://pacificcontractsources.com)

Dining chairs by Charter Furniture  
[charterfurniture.com](http://charterfurniture.com)

##### Guest Room Lighting

Sconce and ceiling lighting: designed by Simeone Deary Design Group, brought to life by Chapman Manufacturing.

##### Wallcovering

Custom wood veneer herringbone weave on the walls and ceiling in the lounge.

**Maya Romanoff**  
[mayaromanoff.com](http://mayaromanoff.com)

Custom wallcovering along wall of bar was designed to represent the 1920s champagne age.

**Kevin Barry Fine Art Associates**  
[kevinbarryfineart.com](http://kevinbarryfineart.com)

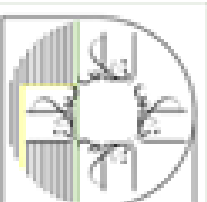
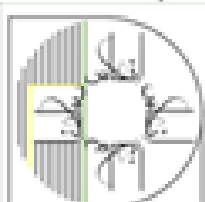


#### PROJECT SPECS

**Project:** LondonHouse Chicago  
**Location:** Chicago  
**Size:** 390,000 sq. ft.  
**Opened:** May 2016  
**Developer:** Oxford Capital Group  
**Owner:** Oxford Hotels & Resorts  
**Master Architect:** Goettsch Partners, Chicago  
**Interior Design:** Simeone Deary Design Group, Chicago  
**General Contractor:** W.E. O'Neil Construction, Chicago  
**Construction Project Management:** Daccord, Chicago  
**Structural Engineers:** TGRWA, Chicago  
**Facade Engineers:** Klein and Hoffman



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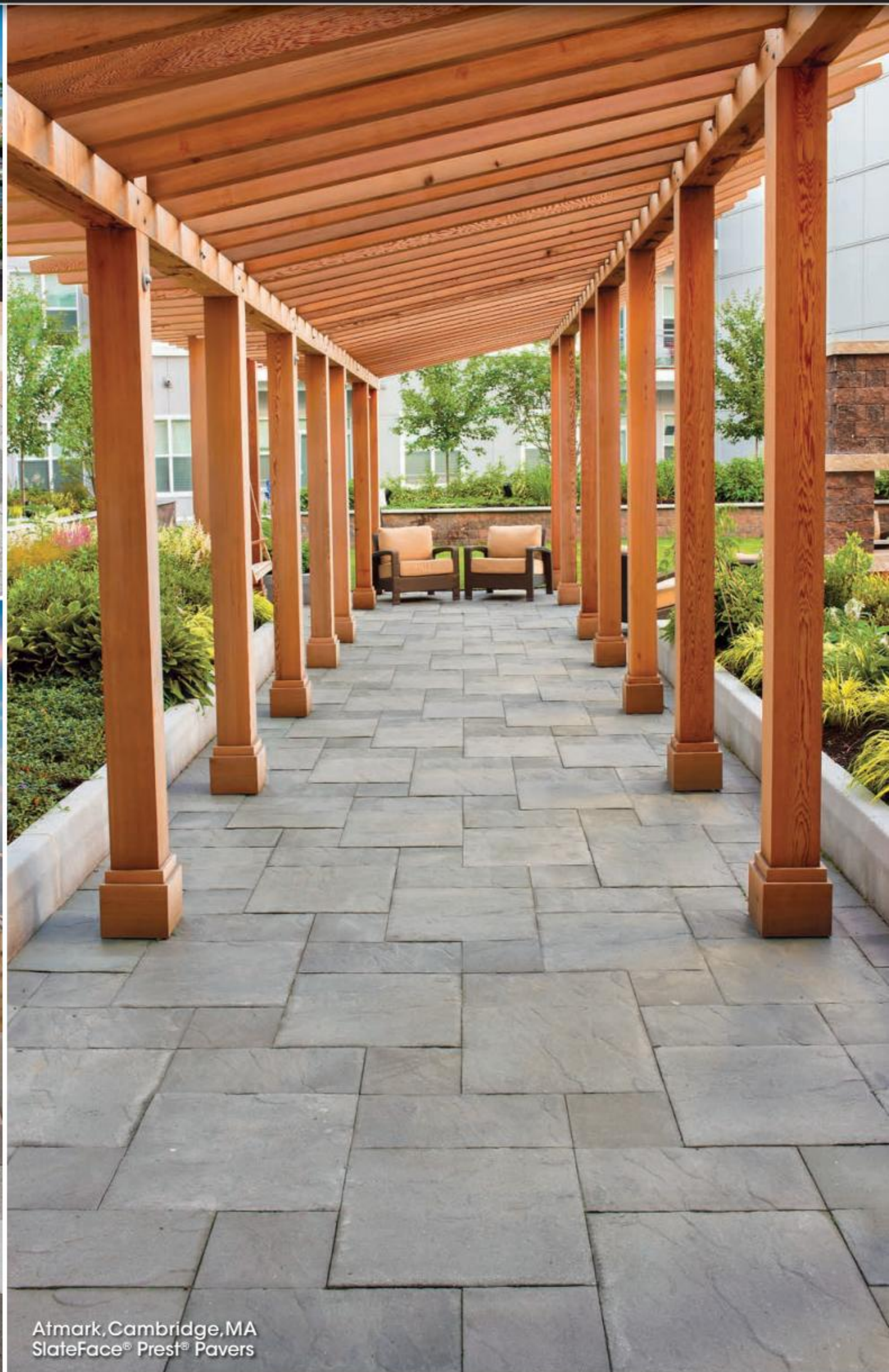




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Hexagonal Prest® Pavers



Hudson River Park Pier 25, Manhattan, NY  
Prest® Pavers



Atmark, Cambridge, MA  
SlateFace® Prest® Pavers

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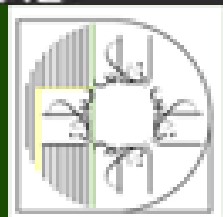
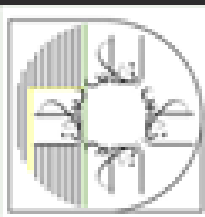
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## Uptown Lofts

Pittsburgh, Pa.

Pittsburgh's Uptown bridges a gap of sorts. And like many of our nation's bridges, it needs some help. The neighborhood sits on the north bank of the Monongahela River, between downtown and Oakland—Pittsburgh's healthcare and academic hive. But while these two areas are teeming with economic, social and cultural activity, Uptown is still reeling from the economic hard times that hit the city in the latter portion of the 20th century. Abandoned buildings are scattered about the

neighborhood, many of the historic homes have been demolished and the area has suffered from steady population decline.

ACTION-Housing, Inc., is hoping to change that. Since the late 1950s, the nonprofit housing organization has worked to provide affordable housing options in western Pennsylvania, and for the last several years, it has focused on revitalizing Uptown. The effort includes renovating existing residential buildings as well as building new single-family infill housing

and multi-unit apartments. And as urban living has become a trend again in Pittsburgh and the rest of the country, rents and property values here have increased, thus reducing the amount of affordable housing. "All of these new developments are intended to create a diversity of housing types in anticipation of a growing demand from a wide spectrum of new residents," says Jeff Davis, a principal with FortyEighty Architecture in Pittsburgh.

One of group's most recent projects

is Uptown Lofts, which FortyEighty designed. The 59,500-sq.-ft. project encompasses two multi-unit apartment buildings across the street from each other in the 2000 block of Uptown's Fifth Avenue corridor. It is constituted of 47 furnished one- and two-bedroom units in all. Both buildings are three stories high, although the south building has a basement level.

The north building houses young adults that have "aged out" of the foster care system and are at a high risk of becoming homeless; the south building pro-



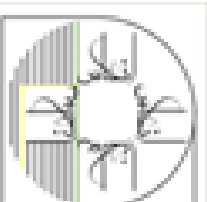
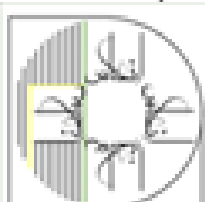
**Jeff Davis** has expertise in the design and construction of a range of projects. His primary focus in the design process is the critical balance between the aesthetic and pragmatic concerns of each project.

vides subsidized rental units for general workforce housing needs.

In addition to providing much-needed affordable residential space, the two buildings also serve as a living experiment. The north building was designed to meet Passive House standards—and is the first affordable multi-family project of its size to

achieve PHIUS+ Certification. On the other hand the south building was designed to meet current energy code requirements only. The major differences between the two buildings are a reduced amount of thermal insulation, lower U-value in the windows and thermal decoupling in the building enclosure for the south building.

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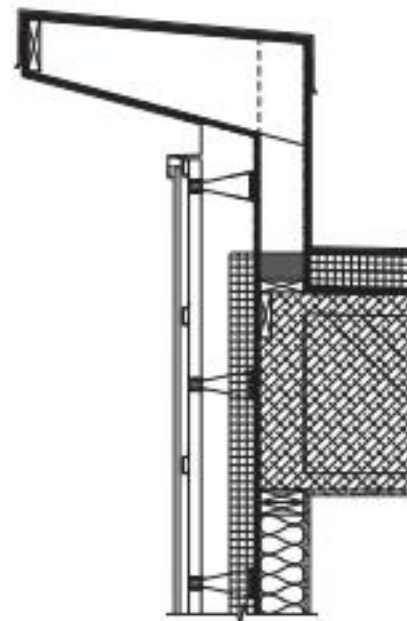




Photos: Jason Snyder

**South Building:**

The façades of the Uptown Lofts buildings are articulated in such a way as to minimize the impact of their size and allow them to fit in with the existing neighborhood buildings, many of which are two or three stories and less than 30-ft. wide.



**ROOF**

The roof is a fairly typical fully adhered Carlisle 60 mil EPDM membrane system, with both rigid polyisocyanurate insulation above the roof deck and blown-in loose fiberglass insulation fill within the roof truss cavity.



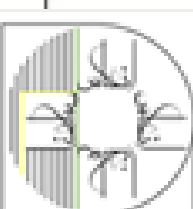
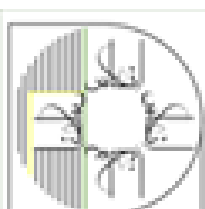
**LOCAL ART**

A skateboard mosaic on the north building was created by local sculpture and neighborhood activist James Simon and reflects the vibrancy and aspirations of the Uptown Lofts project and the neighborhood as a whole.



**North Building:**

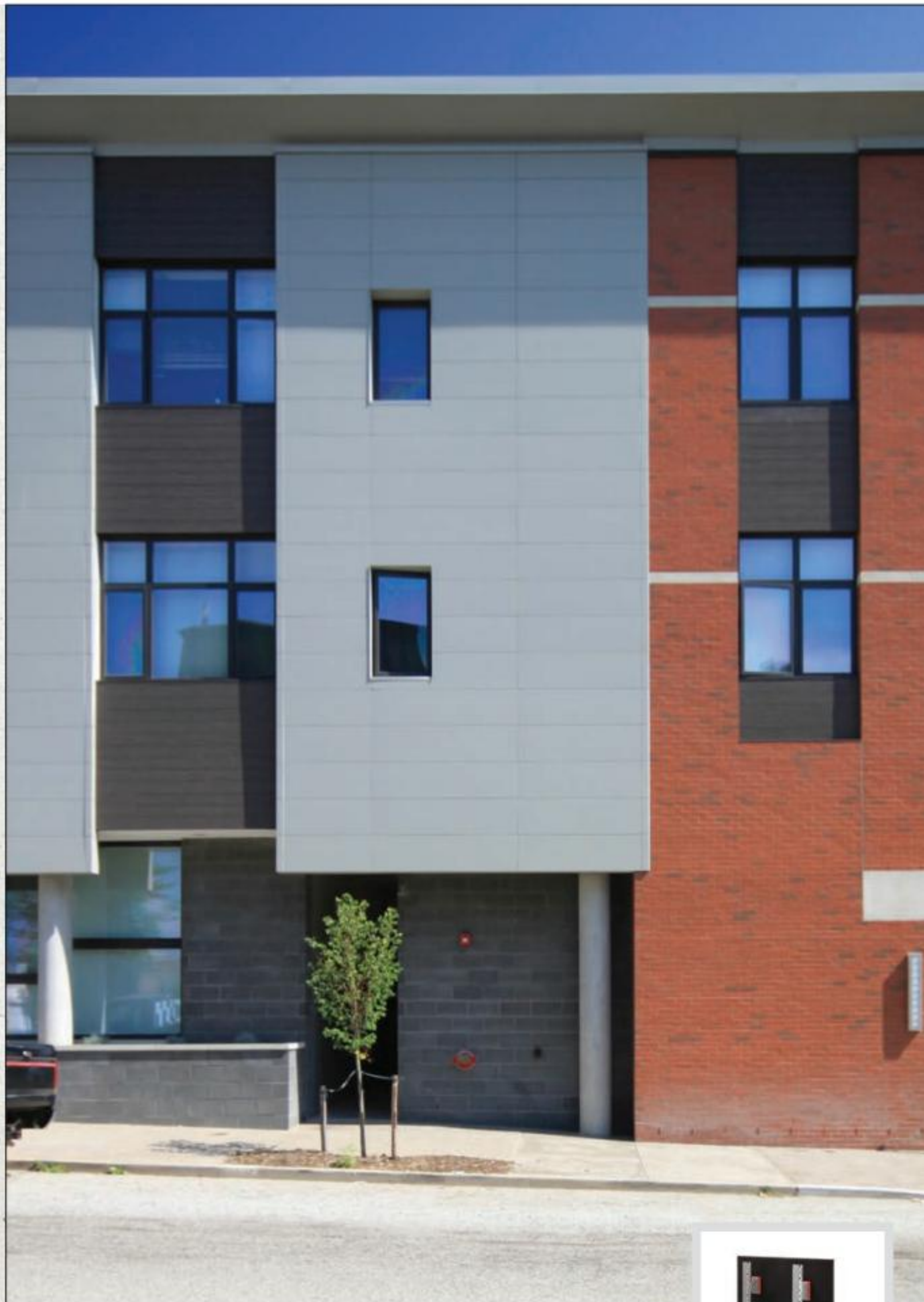
The two structures were built on razed asphalt lots, replacing the desolate landscape with healthy homes, native landscaping, attractive spaces for residents and storm water detention. Located on a primary transportation corridor, vehicular parking has been minimized and bicycle parking has been maximized.





### Rainscreen

"The cladding acts purely as a rainscreen. All of the performance of the envelope, in terms of the thermal and moisture barrier, happens behind the rainscreen," says Davis. The primary feature of the rain screen is the Knight Wall MFI system, an adjustable, thermally isolated support system that decreases the amount of thermal bridging that occurs between the rainscreen support and the structural wall itself. The building's envelope is a "drained and back-ventilated" rainscreen wall, with the outer façade clad in a combination of masonry veneer and fiber cement panels and the principal building structure enclosed by a continuous weather-resistant barrier (WRB). The exterior cladding is separated from the building enclosure by an air cavity, and continuous wall insulation is attached outboard of the WRB to constantly maintain the dew point temperature and resulting condensation outside of the enclosure.



### CLADDING

The outer Nichiha fiber cement cladding is designed to inhibit water penetration into the wall from kinetic energy and wind forces. However, it is expected that some water will enter the cavity due to pressure differential forces, so this cavity is ventilated at the top and bottom of the wall.

### RAINSCREEN SYSTEM: Knight Wall MFI System

The typical wall structure/enclosure system has an insulation design R-value of 40, and its components are:

- ▶ Rigid polyiso insulation, 3 in. thick, (R-21), with 4-in. insulation at masonry-clad elevator and stair towers (R-27); seams taped
- ▶ Henry Air-Bloc 33MR vapor-permeable weather resistant barrier, spray-applied
- ▶ OSB sheathing, 0.5-in. thick, with all joints sealed
- ▶ 2-in. x 6-in. wood framing, 24 in. on center
- ▶ High-density, un-faced fiberglass batt cavity insulation, 5.5-in. thick (R-21)
- ▶ Gypsum board interior finish, 5/8-in. thick, with latex paint

### Windows

The windows are Alpen 525 Series high-performance fiberglass units with triple-pane glazing: two panes of clear glazing with high-SHGC low-E coating on the third and fifth surfaces, interior suspended film and argon fill. The full window U-Value is 0.16-0.20 and SHGC is 0.38-0.48. Center-of-glass U-Value is 0.14 and SHGC is 0.53.



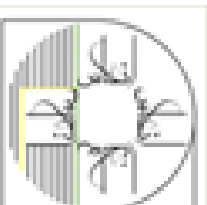
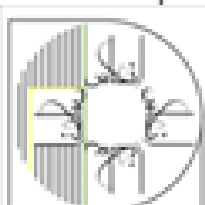
**"We have a long history of developing passive envelope designs, so we had a fairly clear strategy in mind for creating the rainscreen system of these buildings."**

— Jeff Davis, Principal, FortyEighty Architecture



### STOPPING BRIDGING

The vertical S-rails and the ThermaBracket D (below) of the Knight Wall MFI system. The latter component is pre-assembled on the steel bracket.



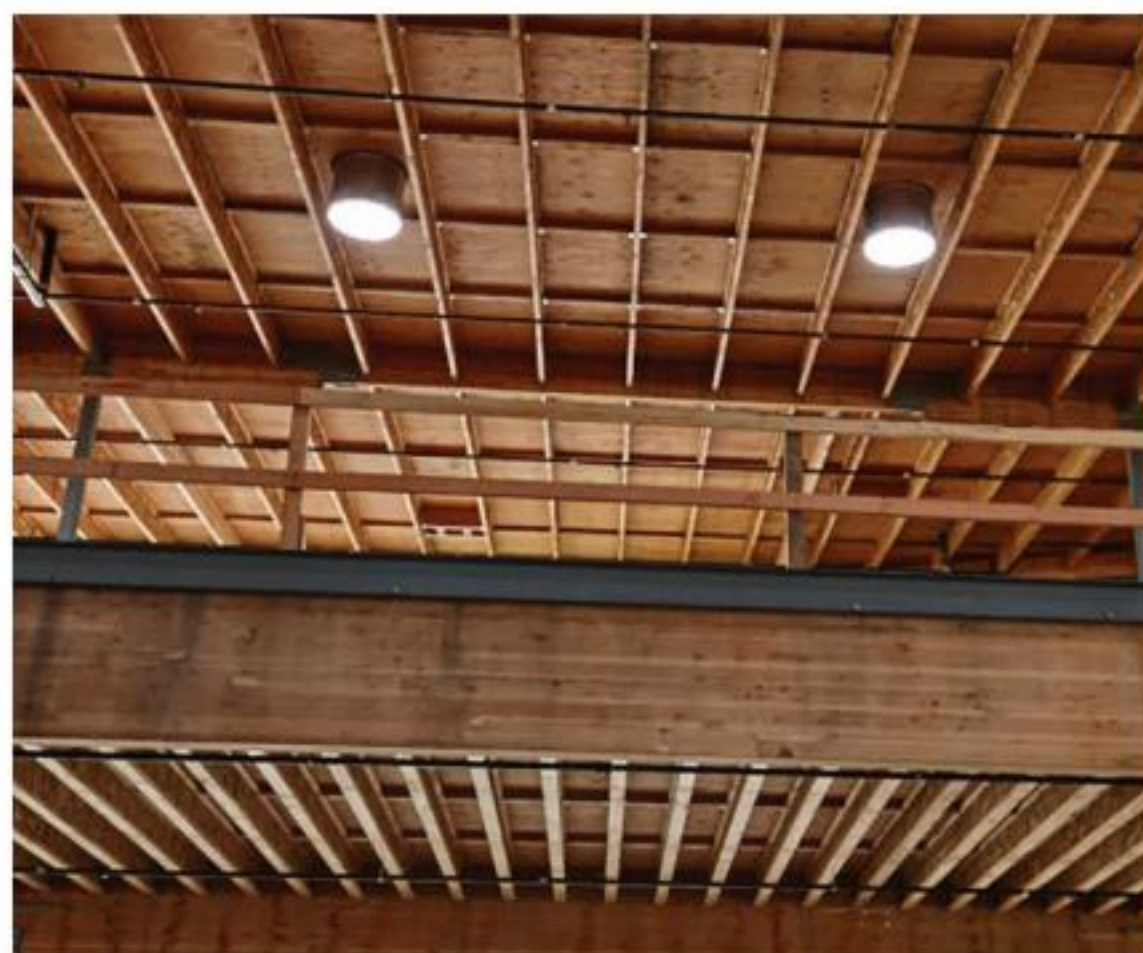
Thermally Fused Laminate | Hardwood/Softwood Plywood

Engineered Wood | Particleboard | MDF

Real Wood Siding | Shelving



Beauty in Progress



**Project:** The Collective at Playa Vista, Los Angeles, CA

**Architect:** Shimoda Design Group, Los Angeles, CA

**General Contractor:** Turner Construction Co., Anaheim, CA

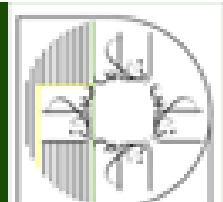
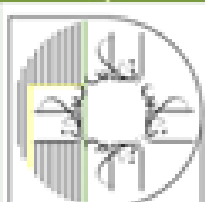
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### VRF AND OPERABLE WINDOWS

Conditioned air is delivered to the residential units via a variable refrigerant flow (VRF) system and energy recovery ventilators, and residents have access to programmable thermostats (with energy-conscious preset temperature ranges), operable windows and ceiling fans. The VRF control system is monitoring energy use, which will be analyzed when sufficient data is available. It is estimated that the north building will achieve a 60% reduction in heating, cooling and ventilation energy use compared to a new building that meets the current energy code.



**“Young, single adults in the north building, prefer lower ambient temperatures and older residents in the south building, prefer warmer temperatures—has a measurable effect on energy consumption used for space conditioning.”**

—Jeff Davis, Principal, FortyEighty Architecture



### HVAC/PERFORMANCE

“We’ve recently just begun to get reliable data that we can use to make the comparison between the buildings,” says Davis. “One thing that appears evident from the preliminary data is that the thermal comfort preferences for different types of occupants—young, single adults in the north building, prefer lower ambient temperatures and older residents in the south building, prefer warmer temperatures—has a measurable effect on energy consumption used for space conditioning.”

Since the south building was designed to exceed the envelope performance levels required of the 2012 International Energy Conservation Code, there are no plans for further modifications, and the project is not expected to be as a “working model” to test other products and assemblies in the future—rather they will be explored as integral components of future developments for the same client.



### EcoInnovation

In addition to the ACTION-Housing initiative, the City of Pittsburgh has designated the area as an EcoInnovation District, a first-of-its kind initiative that, as the name suggests, combines the concepts of Eco-Districts and Innovation Districts, with the goal of creating a new model for urban growth that is inclusive, innovative and environmentally sound. The model emphasizes bottom-up planning to create resilient, sustainable neighborhoods that rely on smart and efficient infrastructure and green building practices and promote job growth and economic opportunity. For more, visit [www.ecoinnovationdistrict.org](http://www.ecoinnovationdistrict.org).

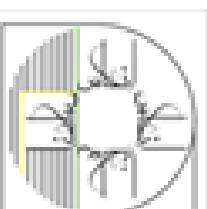
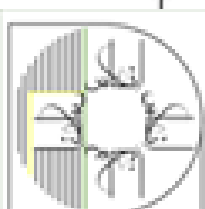


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**VRF CASSETTE**  
HVAC is delivered to the apartments by VRF.

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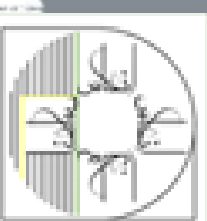
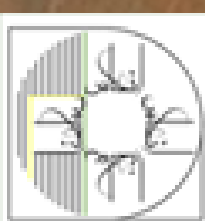
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Project: **Terminal Five, O'Hare International Airport**  
 Location: **Chicago**  
 Architect: **Epstein Global**

**PRODUCT SPECS:**

Product: Chassis  
 Material: Graphite Black Frame with White Seat and Backrest Shell, Qty 64

**Wilkhahn**  
[www.wilkhahn.com](http://www.wilkhahn.com)  
 Circle 327



# High-Flying Design

Chicago's O'Hare Airport's refresh includes sleek, yet durable furnishings.

**CHALLENGE:** Terminal Five in Chicago's O'Hare International Airport had long been in need for a refresh. The terminal's security lines also had a problem of overflowing into the ticketing area and even out toward entrances during peak times. "All the food outlets were pre-security, so once passengers went through security there was really no place to get something to eat other than Hudson News," says John Kolb, Vice President and Senior Project Manager of Epstein Global.

The redevelopment expanded Terminal 5's original 15,000 sq. ft. of space to 26,000 sq. ft., which helped cover the improvement of the security line areas, the creation of public restrooms in both pre- and post-security TSA checkpoint areas, and the expansion of the retail and food options.

**INFLUENCE:** Westfield, a retail giant known for managing and developing high-end shopping malls and airport concessions, won the bid to lease out the terminal and awarded the design work. The project's goal, according to Kolb, was to make the airport much more user-friendly, including seating for the terminal's food hall.

**SOLUTION:** Epstein worked closely with Westfield's L.A.-based design team throughout the project. Together, the design team selected Wilkhahn's Chassis chair for use in the main general seating area for the terminal's food hall, which houses multiple restaurant outlets.

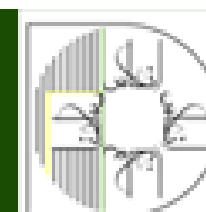
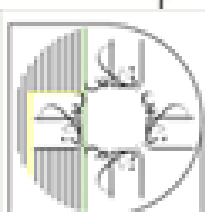
"First and foremost, it came to the look." Kolb says of the Chassis, "It was a chair that worked for the rest of the design of the space." The team opted for the chair in a sleek graphite black frame with a white seat and backrest shell.

Once the team agreed on the look of the Chassis, they tested the chair and ultimately approved of the quality and comfort for the food hall. Kolb adds, "This is an area that gets a lot of traffic and abuse so we wanted something that would hold up over time. We really focused on three factors in the selection process of these chairs— aesthetics, comfort and durability."



**EATING IN STYLE**

O'Hare's Terminal 5 expanded the retail and food options. The design team selected Wilkhahn's Chassis chair for use in the main general seating area for the terminal's food hall.



# Daylight Control

The Flatiron Building employs good daylighting techniques, which includes a custom-made shading system that reduces glare while allowing the proper amount of daylighting into the interior of the building.



Project: **Flatiron Building**  
Location: **Bethlehem, Pa.**

**PRODUCT SPECS:**

Product: Dayliter Shading System

**Indoor Sky**  
[www.indoor-sky.com](http://www.indoor-sky.com)  
Circle 328

PROJECT SPECS

**CHALLENGE:** The iconic Flatiron building in Bethlehem, Pa., was in need of renovation. As sustainable design consultants, the owners, The Stone House Group, were keen to employ good daylighting techniques and wanted to select a custom-made shading system to suit the tall narrow windows.

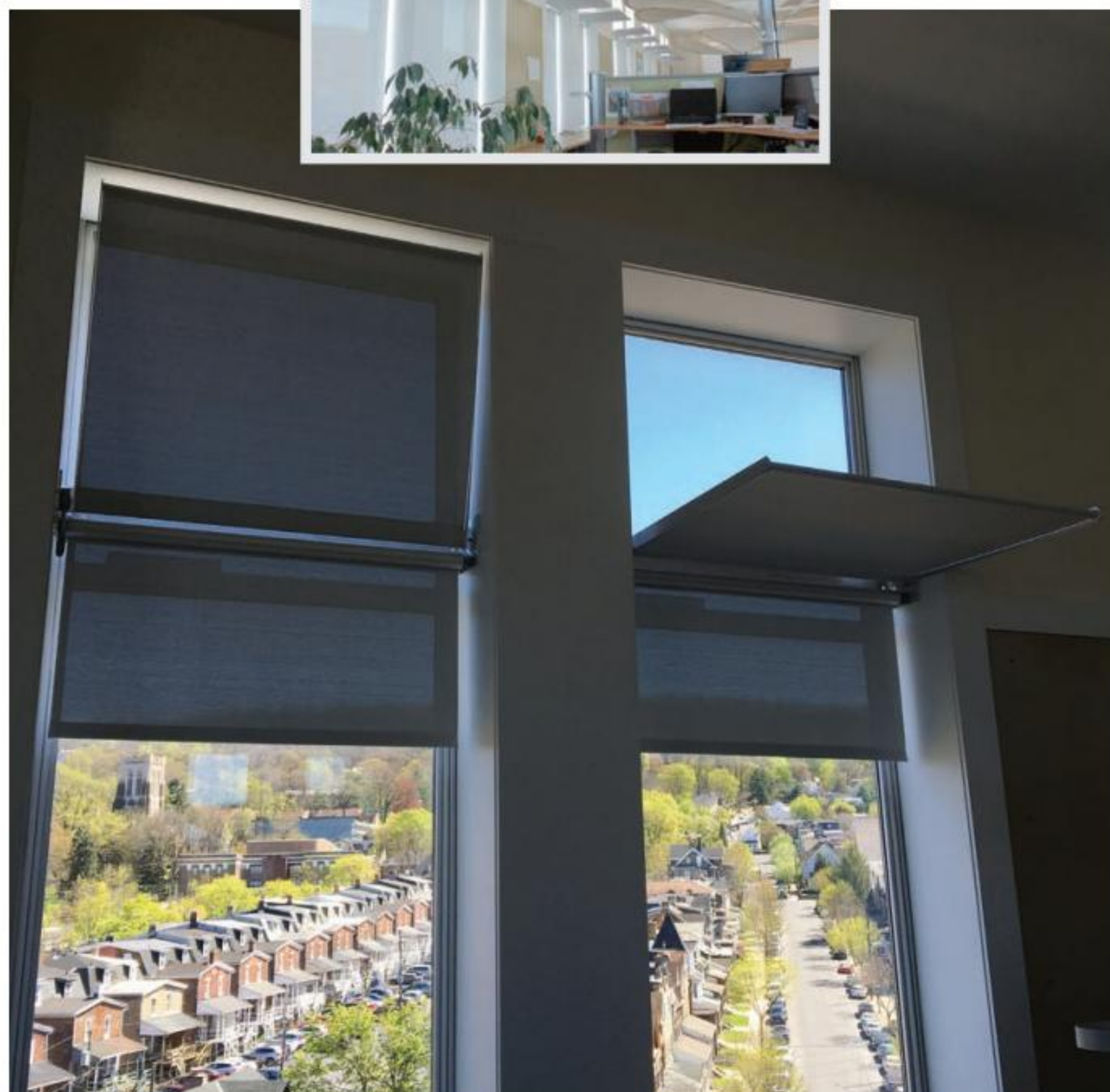
**INFLUENCE:** Proper daylighting control was a critical building component to reduce glare, while allowing abundant daylighting into the interior spaces of the building.

**SOLUTION:** The team opted for Indoor Sky's Dayliter Shading System. Rather than select a "stack" of lightshelves the designer elected to go with a single 36-in. shelf but needed it to be operable. Using a new worm gear operating system, the team at Indoor Sky was able to produce both the functionality and aesthetics that the project required. Motorized roller shades driven by a PV panel completed the system saving the owner significant money by not having to run electrical service to each window head through dense engineering brick.

The Dayliter Shading System delivers glare-free daylight using operable fabric lightshelves with an integral roller shade. The system is fully configurable and available in any shade fabric.

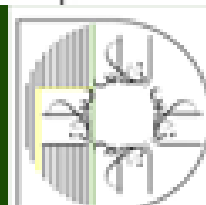
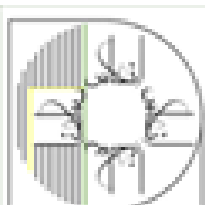
**PRACTICE PREACHING**

The Stone House Group works to practice what it preaches in its own backyard by advocating responsible stewardship of the community and environment. So it was no-brainer that one of the sustainable design methods was to optimize daylight control in its own office space at the Flatiron Building.



**"It is our goal to continue fostering stewardship in the local community by creating a sustainable community and leading by example."**

-Larry Eighmy, The Stone House Group



# 'Cliff House' Features Modern Renovation

Maine's Cliff House Resort underwent a modern renovation that included aesthetics, safety and function, while reigning in captivating views of the Atlantic Ocean.



Images: Cooper Carry



### CHECK OUT THIS VIEW

Large-scale and view oriented hospitality projects require glass railing systems that will meet tight construction schedules, improve guest safety and preserve striking views.



**CHALLENGE:** After 140 years in operation, Cliff House Resort in York, Maine, closed to undergo a complete renovation. Designed by architectural firms Cooper Carry and TruexCullins, the resort reopened in July 2016. The result is a world-class retreat that offers rich historical character while reflecting a contemporary seaside lifestyle.

**INFLUENCE:** To enhance the aesthetics, safety and function of the resort, glass railing systems were provided.

**CRITERIA:** The system is designed to provide transparency and attractive all-glass visuals. It met code requirements, and has gone a step further by being the only guardrail system that is ICC-ES approved.

**SOLUTION:** To preserve the inspiring oceanfront views while increasing safety for visitors, multiple areas of Cliff House Resort are lined with CRL's GRS TAPER-LOC Glass Railing System.

A key feature of the GRS TAPER-LOC Glass Railing System is in its name. The patented TAPER-LOC dry glaze installation method reduces installation time by more than 50%. It also allows for easy adjustment or replacement of glass lites.

Exterior areas of Cliff House Resort are equipped with CRL's P-Series Post Railing System. Posts are constructed from durable stainless steel, making the system ideal for the resort's handrail and guard-rail applications.

Project: **Cliff House Resort**  
Location: **York, Maine**  
Architect: **Cooper Carry, TruexCullins**

### PRODUCT SPECS:

Product: GRS TAPER-LOC  
Material: Glass

**C.R. Laurence**  
[www.crlaurence.com](http://www.crlaurence.com)  
Circle 331

PROJECT SPECS

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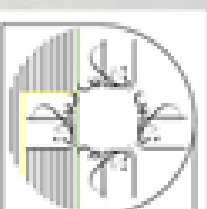
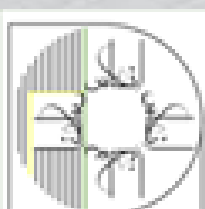


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# Minneapolis' Commons Paves Permeable

Looking toward the environmental benefits for the entire city, downtown Minneapolis was looking toward permeable paving to reduce its stormwater runoff and potential pollution problems.



**Project:** Downtown Commons  
**Location:** Minneapolis, Minn.  
**Architect:** Hargreaves Assoc.

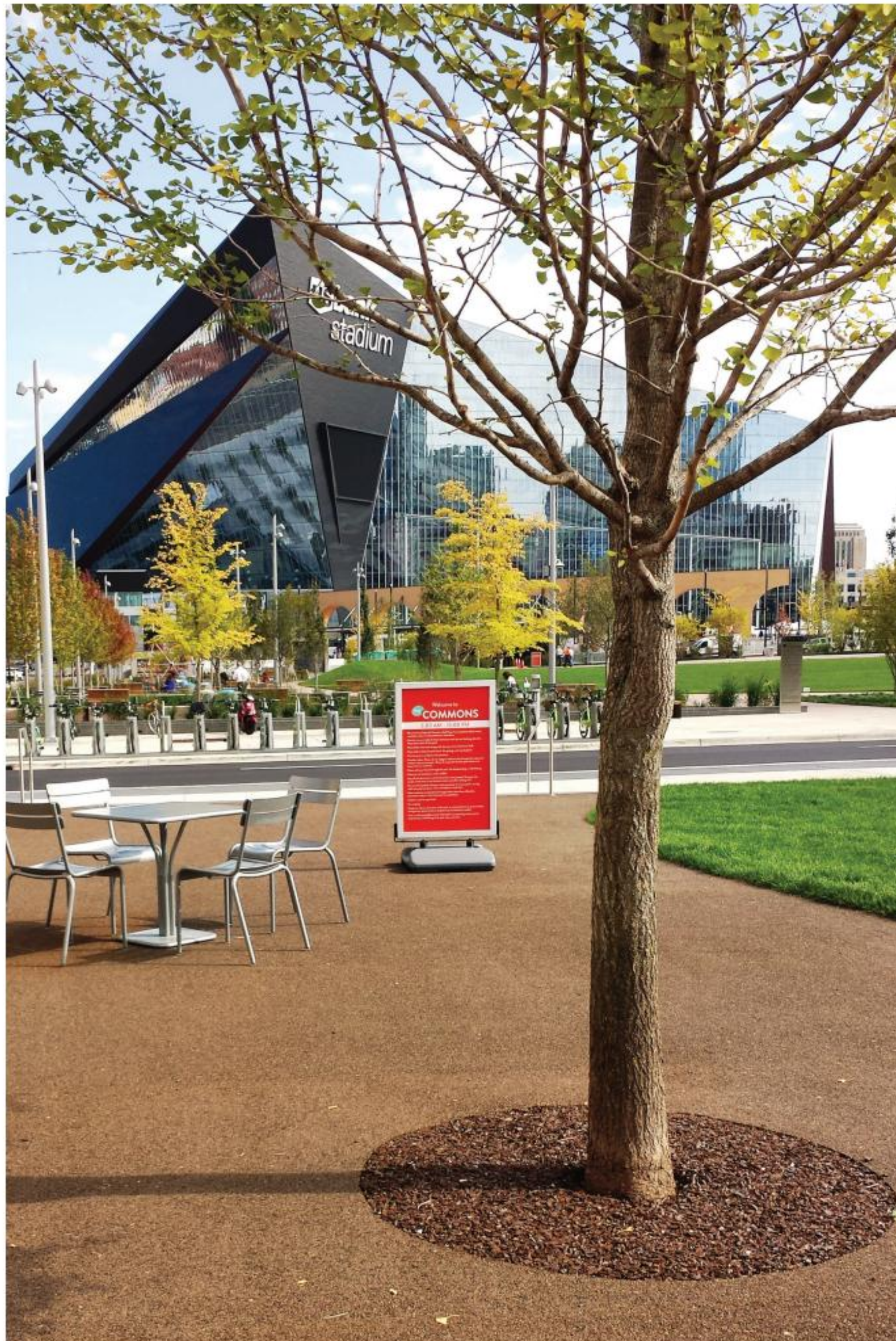
**PRODUCT SPECS:**

Product: Porous Pave XL  
 Material: Recycled Rubber



**Porous Pave**  
[porouspaveinc.com](http://porouspaveinc.com)  
 Circle 330

PROJECT SPECS



**CHALLENGE:** Completed in Aug. 2016, the Downtown Commons, Minneapolis, Minn., is a 4.2-acre public park and green space adjacent to U.S. Bank Stadium, the new home of the Minnesota Vikings.

**INFLUENCE:** "The Commons is the centerpiece of the revitalization and redevelopment of the Downtown East neighborhood," said Jacob Frey, Minneapolis City Council member whose Ward 3 includes the Commons. "The reduction in harmful stormwater runoff and water pollution is one of its many environmental benefits for the entire city."

**CRITERIA:** As is typical for highly urbanized areas, much of downtown Minneapolis is impervious. The Great Lawn, a large oval grass field, is a prominent element of the Commons, designed for deep infiltration of stormwater," said Mary Lydecker, RLA, LEED AP BD+C, senior associate, Hargreaves Assoc., the landscape architecture firm that led the project.

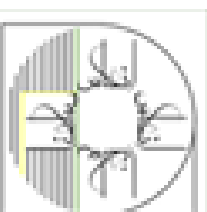
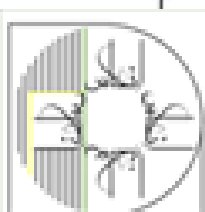
**SOLUTION:** The Commons includes seven areas of Porous Pave XL permeable pavement totaling 19,000 sq. ft. and 120 permeable tree surrounds created using 3000 sq. ft. of Porous Pave XLS.

An eco-friendly green building material made in the U.S., Porous Pave is a highly porous, durable and flexible pour-in-place paving material. Stormwater drains through its permeable surface at a tested rate of 5,800 to 6,300 gallons of stormwater per hour per square foot for on-site stormwater retention. The XL formulation is made from 50% recycled rubber chips and 50% chipped granite aggregate with a moisture-cured, liquid binder. XLS is 100% recycled rubber chips.

**CONTROLLING RUNOFF**

Extensive native and adapted tree and ground cover plantings, as well as various permeable surfacing materials, including Porous Pave, make the Commons very effective at decreasing surface stormwater runoff.

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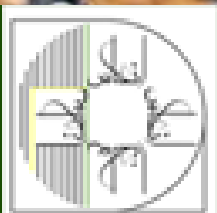
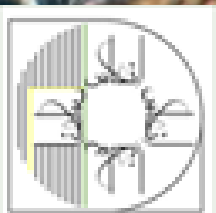
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# Surgery Center Operates on Holistic Design

The Memorial Sloan Kettering's Josie Robertson Surgery Center in New York City provides patients with the most personalized outpatient surgical care, while making use of natural light as much as possible.



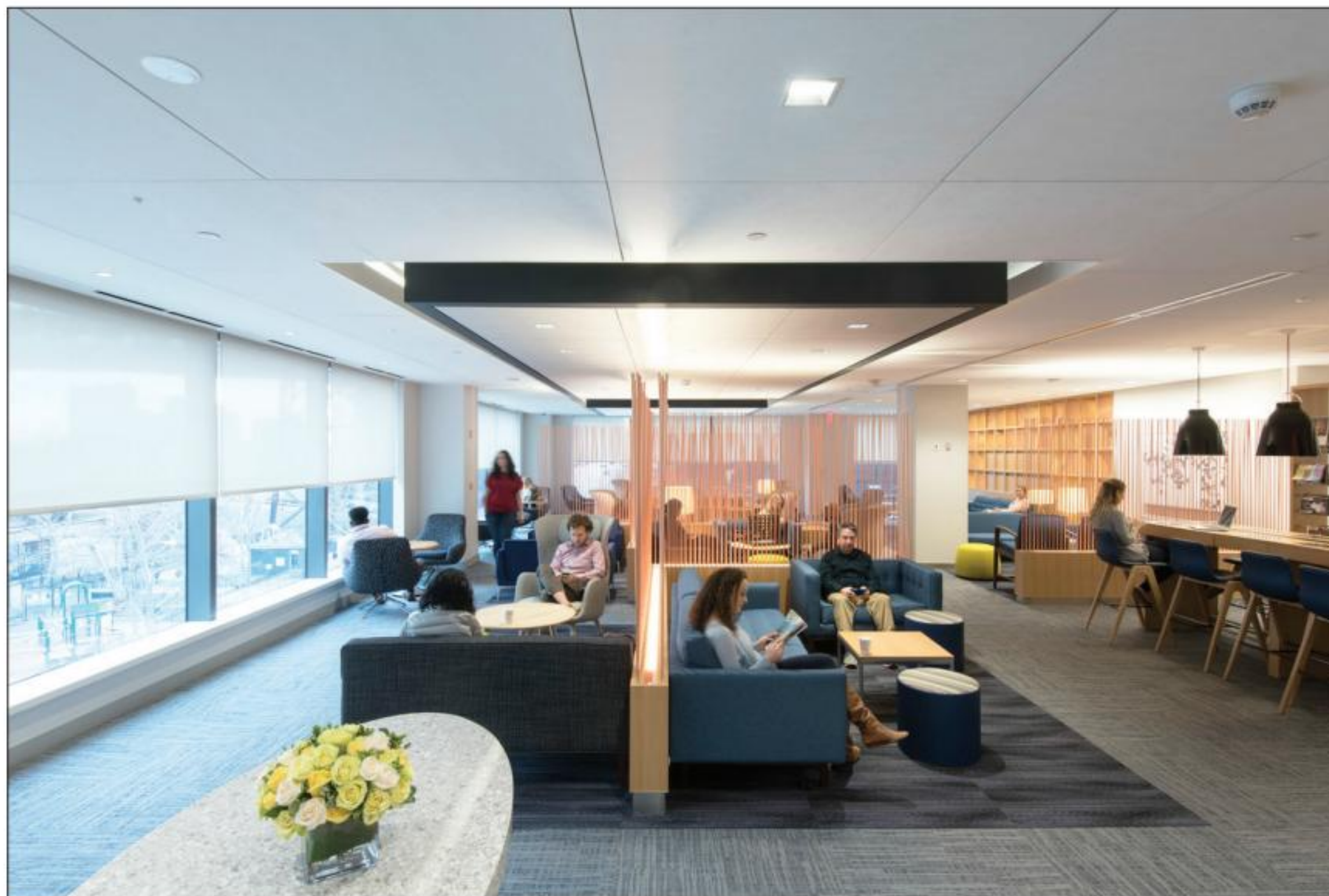
Project: **Memorial Sloan Kettering's Josie Robertson Surgery Center**  
 Location: **New York City**  
 Architect: **Perkins Eastman**

**PRODUCT SPECS:**

Product: Wattstopper  
 DLM Lighting Controls

**Wattstopper**  
[www.wattstopper.com](http://www.wattstopper.com)  
 Circle 329

**PROJECT SPECS**



**LIGHT OPTIMIZATION**

Controls needed to be able to integrate with other building systems. Wattstopper DLM replaced the original lighting controls system.



**“When conceiving JRSC, we designed a holistic approach to the patient experience, one that incorporates physical space, technology and operations.”**

–Suzen Heeley, MSK Design + Construction

**CHALLENGE:** Combining human-centered and state-of-the-art design, Memorial Sloan Kettering's Josie Robertson Surgery Center (JRSC) in New York City is a first-of-its-kind outpatient and short-stay cancer surgery facility. The center is designed to provide patients and their families with the safest, most effective and most personalized outpatient surgical care and help get patients home safely as soon as possible so they can complete their recovery. Lighting, and its controls, is an important aspect of the architectural design of the center.

**CRITERIA:** The requirement was to make use of natural light as much as possible. Controls needed to be able to integrate with other building systems and pass electrical integrity testing.

“When conceiving Memorial Sloan Kettering's JRSC, we designed a holistic approach to the patient experience, one that incorporates the physical space, technology, and operations. The lighting design and controls at MSK's JRSC are pivotal in helping patients and their caregivers feel comfortable, secure and empowered,” says Suzen Heeley, executive director, MSK Design + Construction.

**SOLUTION:** Wattstopper DLM replaced the original lighting controls system that was originally specified and installed for the project. DLM was easily integrated into the hospital's building management system. In addition, Memorial Sloan Kettering found the system easy to install, manage and service.



# Excellent Acoustics Meet Eye-Catching Aesthetics in New Armstrong® Ceilings Metal and Wood Panels

BY SEAN D. BROWNE



Architects and designers now have more creative options than ever when it comes to designing ceilings that can provide both excellent acoustics and eye-catching aesthetics.

The reason: Armstrong® Ceiling Solutions has expanded its portfolio of ceiling panels that provide Total Acoustics™ performance with the addition of select MetalWorks™ and WoodWorks® specialty product lines.

Total Acoustics ceiling panels feature the ideal combination of sound absorption and sound blocking in the same panel. By providing the ability to both absorb unwanted sound and block sound from traveling into adjacent spaces, Total Acoustics ceiling panels are an ideal choice for today's flexible interiors where a mix of private spaces and open spaces often share the same floor space. Armstrong is the only wood or metal ceiling manufacturer to offer this type of acoustical performance in its ceilings.

## ACOUSTICS MEET AESTHETICS

Metal panels, when perforated and backed with an infill panel, provide excellent noise control but

also enhanced design flexibility, especially in signature spaces. In areas where a strong visual statement is desired, MetalWorks panels impart a sleek, sophisticated look. WoodWorks panels, with perforations or horizontal grille and infill panel, impart a rich, warm look.

According to internationally known sound and communication expert, Julian Treasure, the new Total Acoustics additions offer a range of creative acoustic options that also delight the eyes. "Until now, there's been a trade-off in ceiling design," he states. "If designers needed a ceiling that both absorbed and blocked sound, using a specialty product like wood or metal has been out of the question. Now, it is possible to align great sight and great sound. Acoustics, meet aesthetics."

## PLENTY OF CEILING PANEL CHOICES

Armstrong® WoodWorks ceiling panels with Total Acoustics performance now include WoodWorks Tegular, WoodWorks Grille Tegular, and WoodWorks Channeled Tegular. MetalWorks ceiling panels with Total Acoustics performance include MetalWorks Tegular, MetalWorks Tin,

MetalWorks Mesh™, and MetalWorks 3D.

To make it easier to specify the right ceiling for a space, both metal and wood Total Acoustics panels are rated as Good, Better, and Best based on their combination of sound absorption as denoted by their Noise Reduction Coefficient (NRC) and sound blocking as denoted by their Ceiling Attenuation Class (CAC).

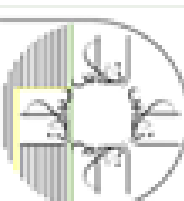
Total Acoustics ceilings rated as "Best" have an NRC of 0.80 or higher and a CAC 35 or higher. "Better" ceilings have an NRC of 0.70-0.75 and a CAC 35 or higher. "Good" ceilings have an NRC of 0.60-0.65 and a CAC 35 or higher.

The new additions join a family of Armstrong® product lines that already feature a wide variety of ceiling panels with Total Acoustics performance, including Ultima®, Calla®, Lyra®, Cirrus®, Fine Fissured™, Mesa™, Canyon®, School Zone®, and Georgian™.

For more information on MetalWorks and WoodWorks Total Acoustics ceiling panels, visit [armstrongceilings.com/totalacoustics](http://armstrongceilings.com/totalacoustics).

Sean D. Browne is Principal Scientist - Global Acoustics for Armstrong® Commercial Ceiling Systems. He can be reached at [sdbrowne@armstrongceilings.com](mailto:sdbrowne@armstrongceilings.com)

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**Fluid Applied Air Barrier Membranes**  
This course focuses on fluid applied air barriers which have continued to increase in popularity in recent years.



**Acoustics and Cementitious Wood Fiber Products**  
Good acoustics are a key element of good design. Here's how wood-based products can help.



**Open Cell Spray Foam Insulation in commercial Buildings**  
Build healthier, more efficient commercial buildings, and maintain a low environmental impact.

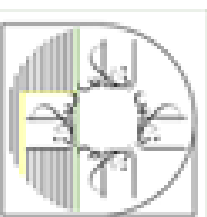
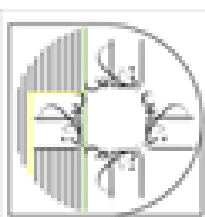


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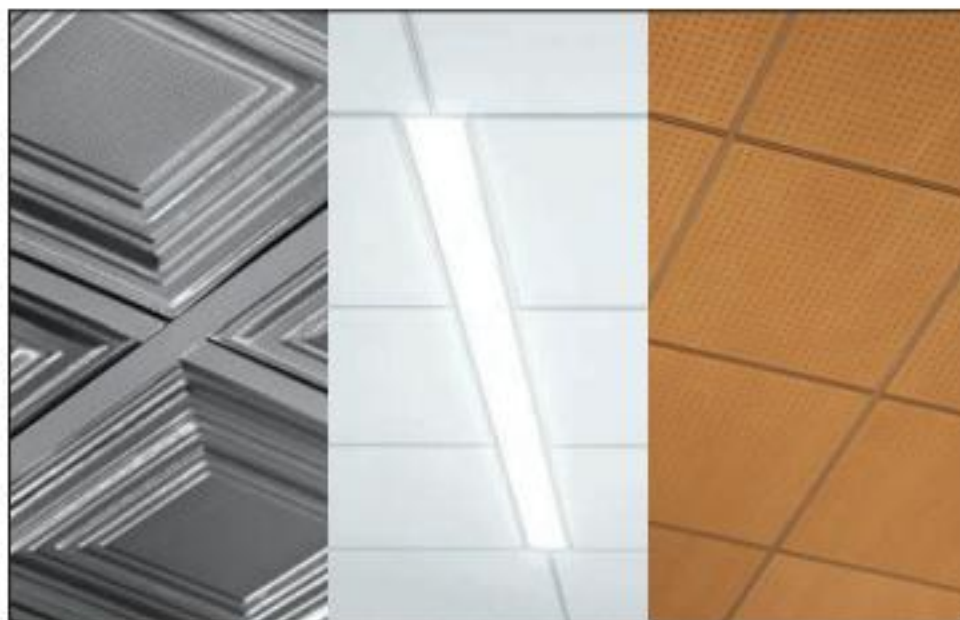
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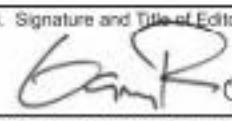
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## index to advertisers

|  |                 |  |         |   |         |
|--|-----------------|--|---------|---|---------|
| <b>AGC</b><br>us.agc.com   | 113             | <b>Dura Coat Products</b><br>duracoatproducts.com              | 103     | <b>Mitsubishi Electric</b><br>mitsubishipro.com               | 69      |
| <b>AHR Expo</b><br>ahrexpo.com                                     | 109             | <b>Duro-Last Roofing</b><br>duro-last.com                      | 80      | <b>Mockett &amp; Co.</b><br>mockett.com                       | 88, 113 |
| <b>Airolite</b><br>airolite.com                                    | 65              | <b>Excel Dryer</b><br>exceldryer.com                           | 27      | <b>Modular Arts</b><br>modulararts.com                        | 10      |
| <b>Aluflam</b><br>aluflam-usa.com                                  | 78              | <b>Ferguson Perforating</b><br>fergusonperf.com                | 113     | <b>Móz</b><br>mozdesigns.com                                  | 113     |
| <b>American Hydrotech</b><br>hydrotechusa.com                      | IBC             | <b>Forbo</b><br>forboflooringna.com                            | 13      | <b>NanaWall</b><br>nanawall.com                               | 47      |
| <b>ASI Accurate Partitions</b><br>www.asi-accuratepartitions.com   | 15              | <b>Gemini</b><br>geminisignproducts.com                        | 39      | <b>Neolith</b><br>neolith.com                                 | 45      |
| <b>ARCAT</b><br>arcat.com  | 30              | <b>Georgia-Pacific Gypsum</b><br>gpgypsum.com                  | 75      | <b>New Millennium Building Systems</b><br>newmill.com         | 107     |
| <b>Armstrong (Ceiling)</b><br>armstrong.com                        | IFC-1, 111, 113 | <b>Glen-Gery</b><br>glengery.com                               | 9       | <b>Nichiha</b><br>nichiha.com                                 | 2-3     |
| <b>Azon</b><br>www.azonintl.com                                    | 40              | <b>Guardian SunGuard</b><br>sunguardglass.com                  | 59      | <b>Overhead Door</b><br>overheaddoor.com                      | 49      |
| <b>B.I.G. Enterprises</b><br>bigbooth.com                          | 113             | <b>Hanover Architectural Products</b><br>hanoverpavers.com     | 97, 113 | <b>Parkland Plastics</b><br>parklandplastics.com              | 57      |
| <b>B-K Lighting</b><br>bklighting.com                              | 4               | <b>Hunter Douglas Architectural</b><br>www.hdarchitectural.com | 11, 85  | <b>Petersen Aluminum</b><br>pac-clad.com                      | 6, 114  |
| <b>Belden Brick Company</b><br>beldenbrick.com                     | 113             | <b>Inpro</b><br>inprocorp.com                                  | 51      | <b>pinta acoustic</b><br>pinta-acoustic.com                   | 63      |
| <b>Bilco</b><br>bilco.com  | 41              | <b>Kim Lighting (Hubbell)</b><br>kimlighting.com               | 67      | <b>Rixson (Assa Abloy)</b><br>rixson.com                      | 63      |
| <b>Cascade Coil</b><br>cascadecoil.com                             | 38              | <b>Kolbe</b><br>kolbe-kolbe.com                                | 21      | <b>Roseburg</b><br>roseburg.com                               | 101     |
| <b>CertainTeed (Ceilings)</b><br>certainteeted.com                 | 53              | <b>LaCantina Doors</b><br>lacantinadoors.com                   | 61      | <b>Schweiss Bi-Fold Doors</b><br>bifold.com                   | 114     |
| <b>Citadel</b><br>citadelap.com                                    | 81              | <b>Landscape Forms</b><br>landscapeforms.com                   | 83      | <b>Sto</b><br>stocorp.com                                     | 74      |
| <b>ClarkDietrich</b><br>clarkdietrich.com                          | 95              | <b>Leviton</b><br>leviton.com                                  | 89      | <b>The Stonhard Group</b><br>stonhard.com                     | 77      |
| <b>Construction Specialties, Inc.</b><br>acrovynbydesign.com/ideas | 19              | <b>LP Building Products</b><br>lpcorp.com                      | 5       | <b>The Continuing Architect</b><br>thecontinuingarchitect.com | 112     |
| <b>Construction Specialties, Inc.</b><br>c-sgroup.com/door         | 35              | <b>Mapes</b><br>mapescanopies.com                              | 55      | <b>Tectum</b><br>tectum.com                                   | 28-29   |
| <b>Decor Cable</b><br>decorcable.com                               | 88              | <b>Marvin Windows and Doors</b><br>marvin.com/commercial       | 23      | <b>Ultra-tec</b><br>ultra-tec.com                             | 73      |
| <b>Delta Faucet</b><br>deltafaucet.com                             | 37              | <b>Maxxon</b><br>maxxoncorporation.com                         | 86      | <b>Valspar</b><br>valsparinspireme.com                        | 71      |
| <b>Dri-Design</b><br>dri-design.com                                | 25              | <b>MBCI</b><br>mbci.com  | 79      | <b>Wausau Tile</b><br>wausautile.com                          | BC      |
| <b>DuctSox</b><br>ductsox.com                                      | 62              | <b>MDC</b><br>mdcwall.com                                      | 93      | <b>Xypex</b><br>xypex.com                                     | 87      |

by Megan Mazzocco, Senior Editor

## International Advocacy

Marlene Liriano is the managing director and principal at IA Interior Architects. She shattered the glass ceiling to get a top notch education and excel at a career in the field of interior design. Throughout her career, Liriano has advocated for herself, and as the 2016-2017 president of IIDA, she lends her voice of advocacy to interior designers everywhere.

**Marlene Liriano**, is the managing director for the Miami office of IA Interior Architects and 2016-2017 President of IIDA. Liriano's collaborations represent leadership of award-winning projects.



Marlene Liriano practiced at several large firms including HOK and Perkins+Will before she reached IA Interior Architects. "The community has really embraced me, the firm and the team; we've had great opportunities with new clients, and long-standing clients as well," Liriano says. She has been delighted to be recognized and to recognize other talented interior designers. "The managing directors look to individuals who have the capabilities and wherewithal to do the job," says Liriano.

A trailblazer for IA in Miami, it is no surprise that Liriano has charged herself with a similar role in her position at International Interior Design Association (IIDA), which recently established a Milan, Italy, chapter. And now as Liriano takes the presidency, IIDA aims to expand into Latin America. "We're hoping for one to two more chapters this year." That is only one of her objectives while in her post, as she continues to advocate for students, young designers and professionals by staging networking events, design competitions and professional opportunities that influence them in a positive way as they enter the workforce. "I really wanted to make a difference in profession, push it forward, even if it's just baby steps, that is good enough for me to leave something behind for young designers coming after me."

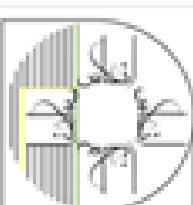
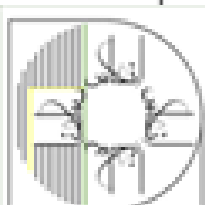
This advocacy for the profession rings true in her voice, and Liriano says that IIDA continues to advocate for interior designers to be able to practice to the fullest of their capabilities in all states. Something leading to more autonomy for interior designers is a shift in curriculum; for instance, the Interior Architecture program at her alma matter, Florida International University (FIU), where "students are being trained and educated on a very high level." Liriano says graduating designers have broad experiences and mastery of digital design software.

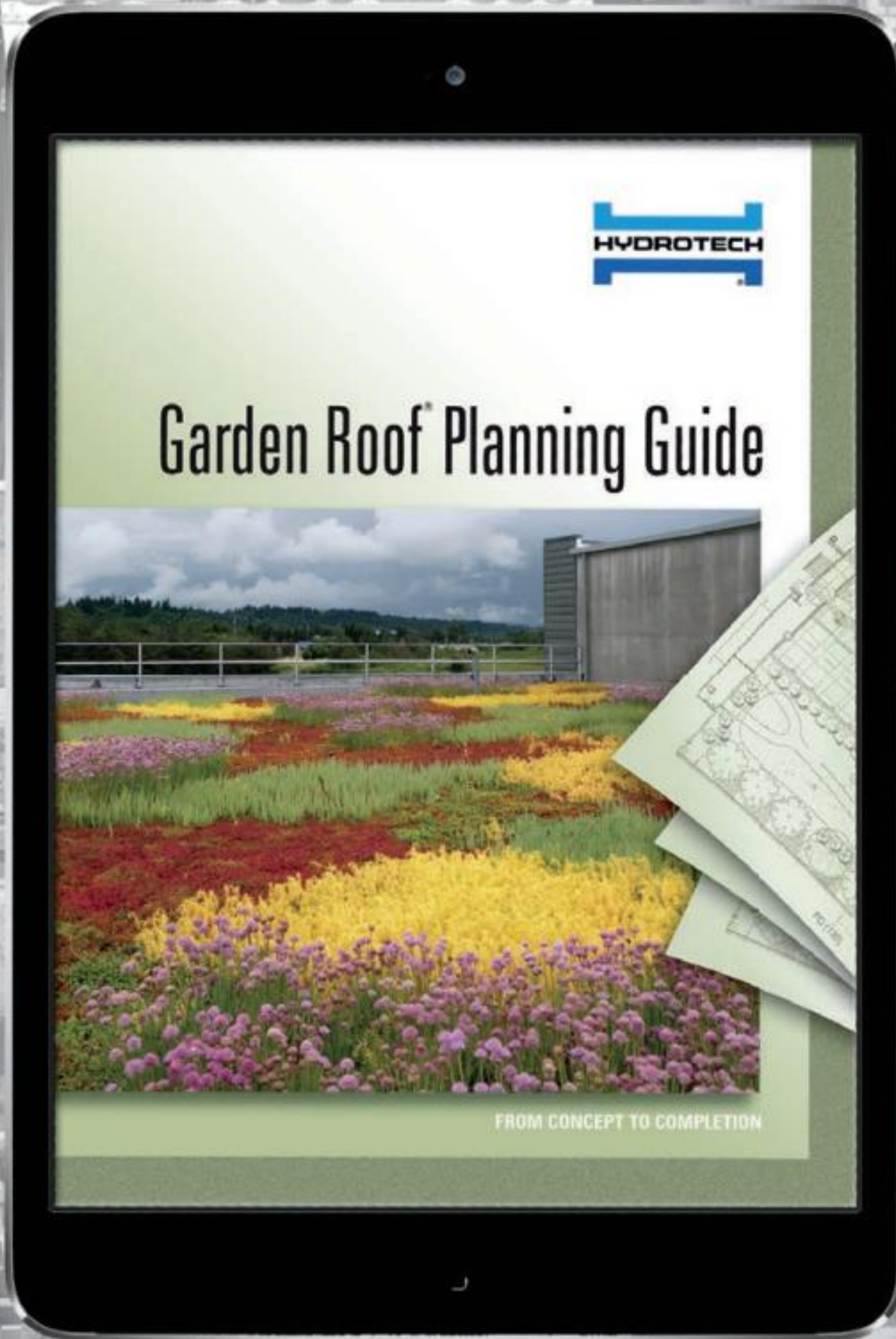
Interior designers continuing to learn in the field are now thinking about the WELL Building Standard, which considers all things inside of a building and how they may affect human health systems. "It is our obligation," says Liriano; that said, others feel the same: IIDA has been educating its members about WELL since last year, says Liriano, and HOK recently announced adoption of the WELL Building Standard. "WELL is coming on board like LEED did; everyone is trying to get their heads around what it means, what it entails—even the contractors." Which is great news, especially, as IIDA is moving into a new space and they are building it to the WELL standard, reports Liriano.



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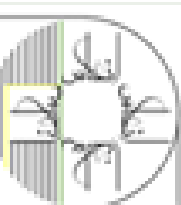
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