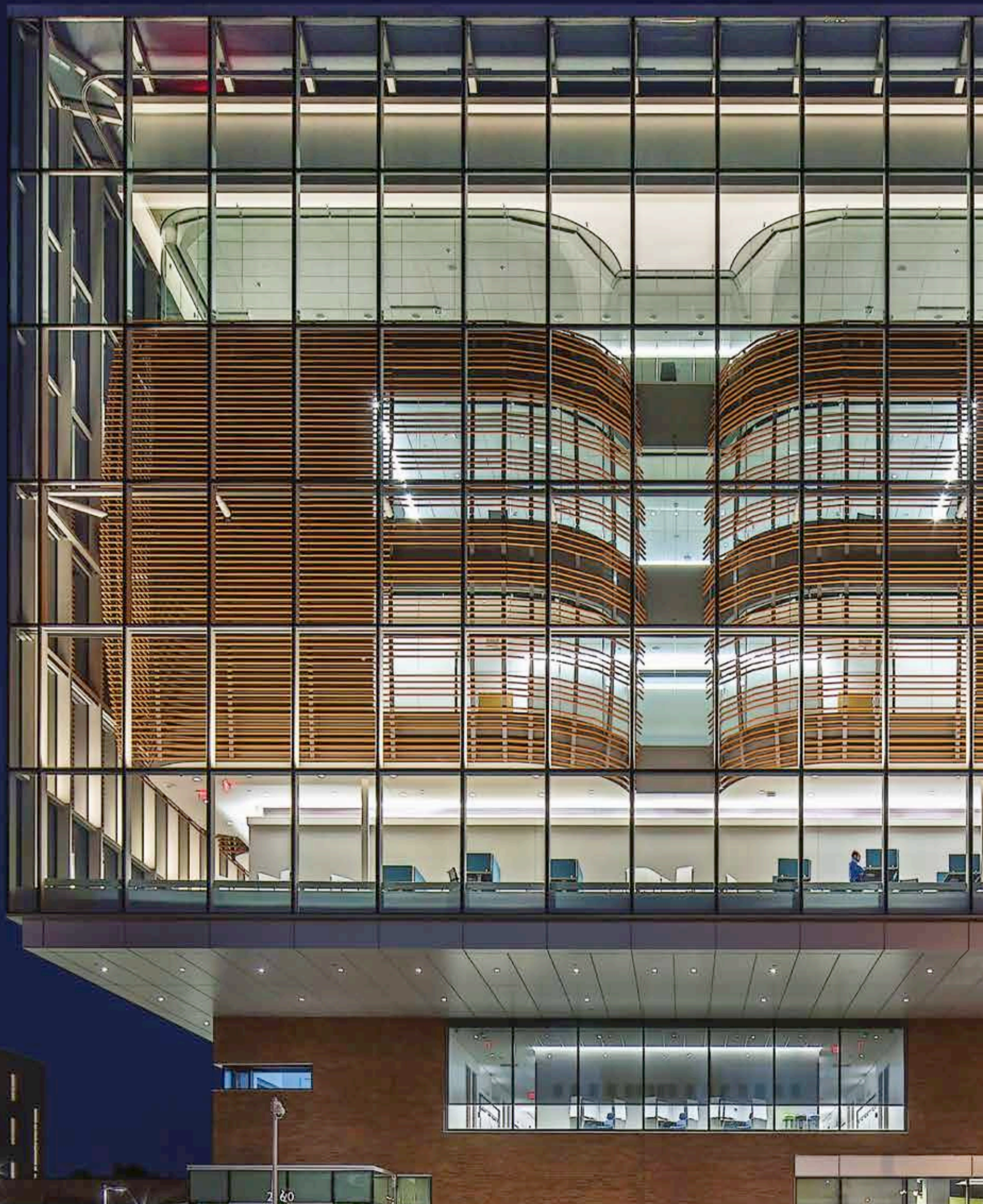




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The logo consists of a stylized blue "V" icon followed by the word "itro" in a bold, sans-serif font. Below this, the words "Architectural Glass" are written in a smaller, lighter font.

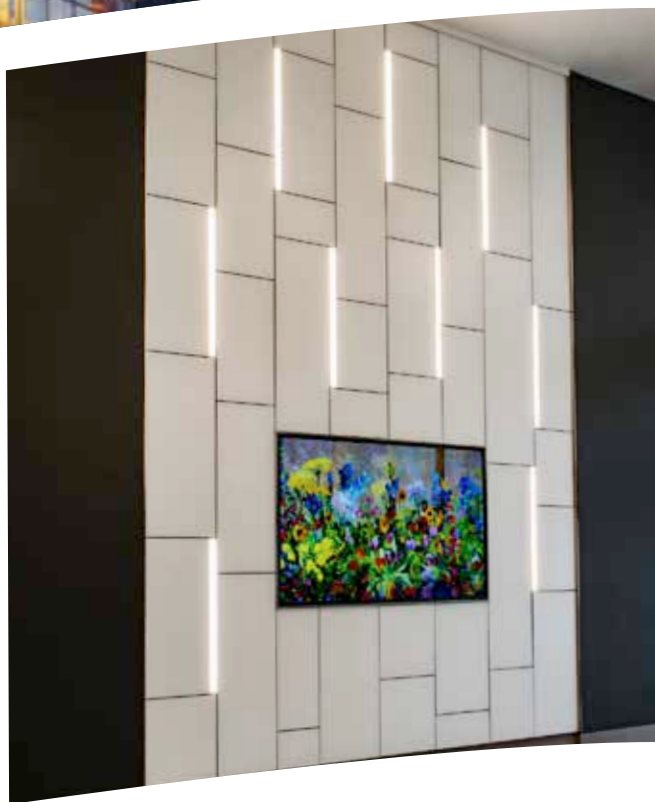
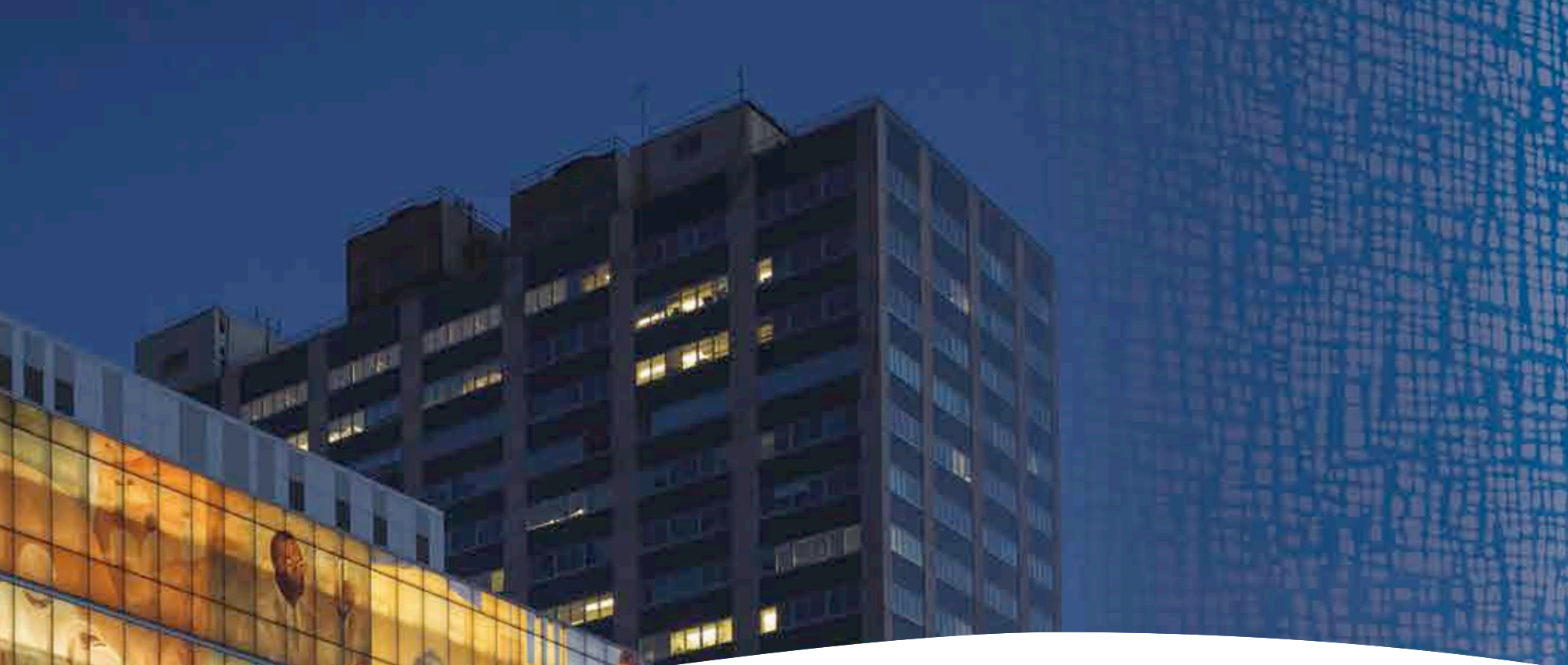
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Today, more than ever, it requires not one person, but many. "no BYSTANDERS" is a call to action.

In the case of determining a building's artistic value, cultural context matters. How it reflects leading thinking in office, hospital, or restaurant design (to name a few) can peg it to the "art" history timeline of importance. Beyond a banal building. Beyond a designed environment. Beyond the individual visions and abilities of the architect(s), the owner/developer(s), the available building materials, engineers, contractors, consultants, and occupants.

The ability to achieve the highest levels of design are now, more than ever, the result of effective "collaboration." It's what happens when people work together, each applying their own strengths and talents, to create something better than can be accomplished as a solitary act. Collaboration has shifted us culturally from an "emphasis on individual accomplishment" to "the work."

This issue's cover is a collaboration dialogue starter on water. You engage in the collaborations accessible to you now, and those requiring effort, to more than solve current design and construction issues. Oftentimes with speed to solution. With that same determination, we confront the scarcity and preciousness of water, and how it impacts, and is impacted by the activities to which we have all devoted our lives.
exceptional, almost impossible, quest.



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Bright Ideas

Lighting Expert Discusses Trends in Lighting for Commercial Spaces

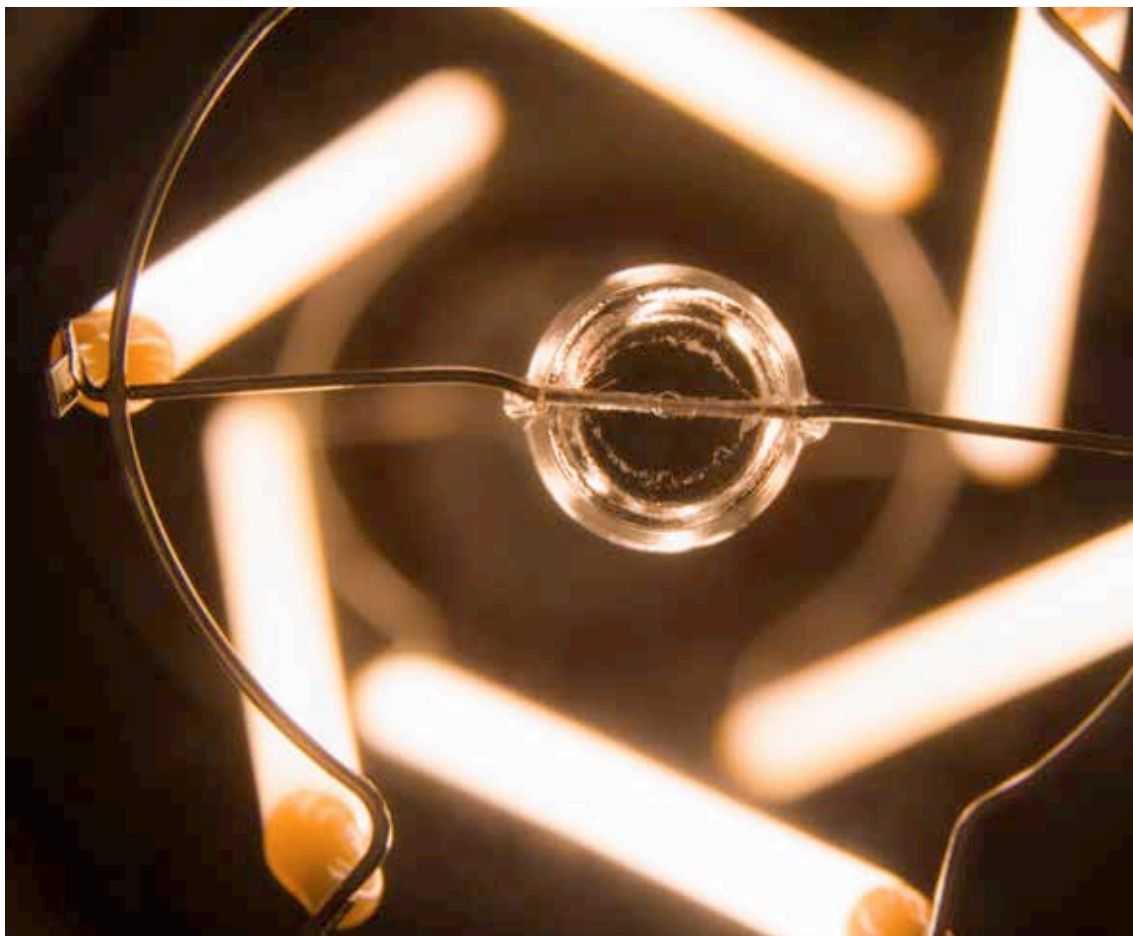
A building's lighting design is critical its performance and energy efficiency. It's even more important to the productivity, comfort, and health of the people who live, work and gather in those spaces.

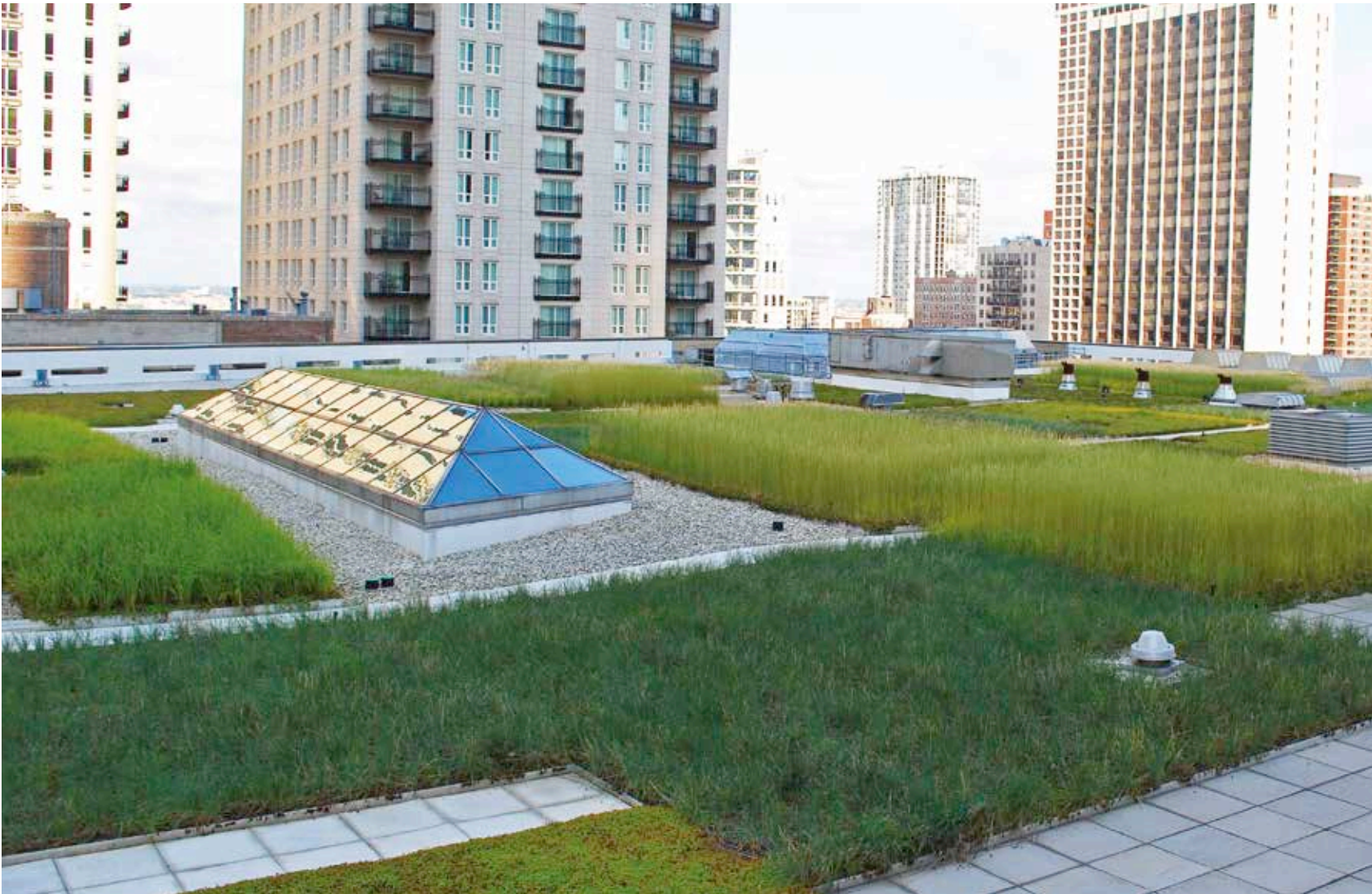
Aparna Sproelich is the principal owner of One B Group consulting in Raleigh, N.C., is Lighting Certified through the National Council on Qualifications for the Lighting Professions (NCQLP) and is a member of Illumination Engineering Society (IES). We spoke with her about the importance of lighting in architectural designs.

Sproelich: Spaces now are getting away from the standard downlight and the standard troffer. Those seem to be a little bit boring and more and more people are getting away from that. Slot lights, linear lights, clean looking lighting is becoming the trend. It is adding to the ambience, adding to the visual interest.

Another important trend is circadian lighting, where the light actually changes color throughout the day, just like the sun. In the morning time outside you have more of the warm color. As the sun moves across the horizon, now that color temperature changes to more of a mid-day bright color. Something that is overlooked is paint color, and the color of the carpet, the wall, and any of the other appliances in that space. That affects the light output because it all bounces off each other.

Before the architect starts the building project, all the stakeholders need to meet. The lighting designer, the engineer, maintenance, the building owners should meet, define what the purpose of that space is going to be. Once the purpose is there, then you can define the budget. Talking to manufacturers, manufacturers, reps, agents, and lighting designers can help in creating a worthy space.





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DARE TO DREAM

The Morpheus Creates an Icon for Asia

By: Griffin Suber, contributing editor



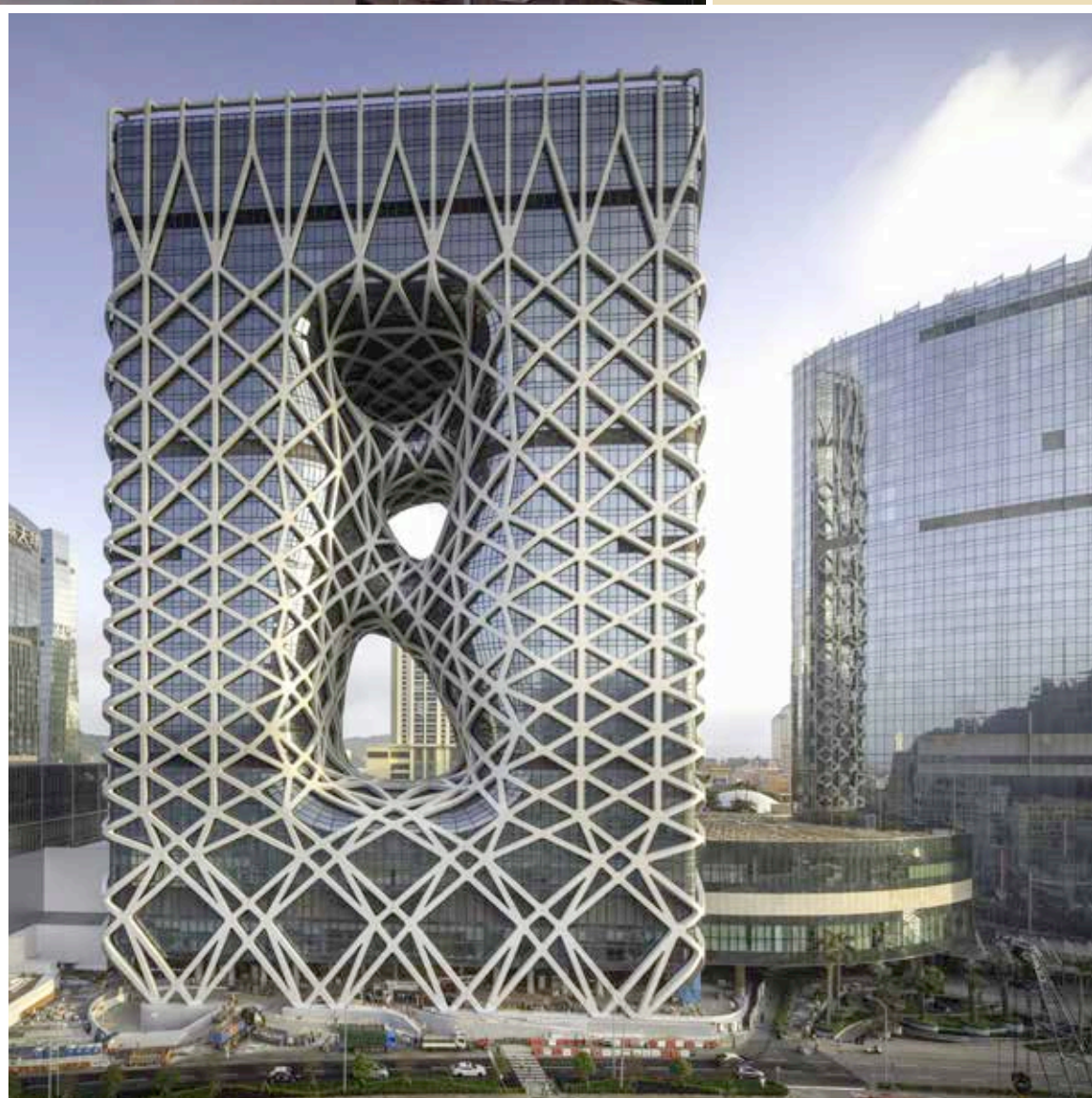
Built on the abandoned foundation of a condominium that never got off the ground, inspired by the fluid carvings of Chinese jade, and a standing testament to more than a few architectural breakthroughs, The **Morpheus Hotel** is Macau's latest marvel of engineering.

Made possible by the latest digital sequencing and communication methods, this imaginative structure playfully pokes holes in what could have been just another monolithic hotel.

Bearing the name of the Greek god of dreams, the Morpheus Hotel sprung from the imagination of the late Zaha Hadid and her partners at Zaha Hadid Architects (ZHA), Patrick Schumbauer and Viviana Muscettola.

ZHA's cutting edge projects span the globe and consistently the firm demonstrates a unique ability to make steel and concrete flow, mimicking nature's aversion to right angles.

Restricted to a height of 160 meters by local building codes, the structure was built to take the place of a rectangular condo that was never completed, so its basic shape was decided before any designs began.





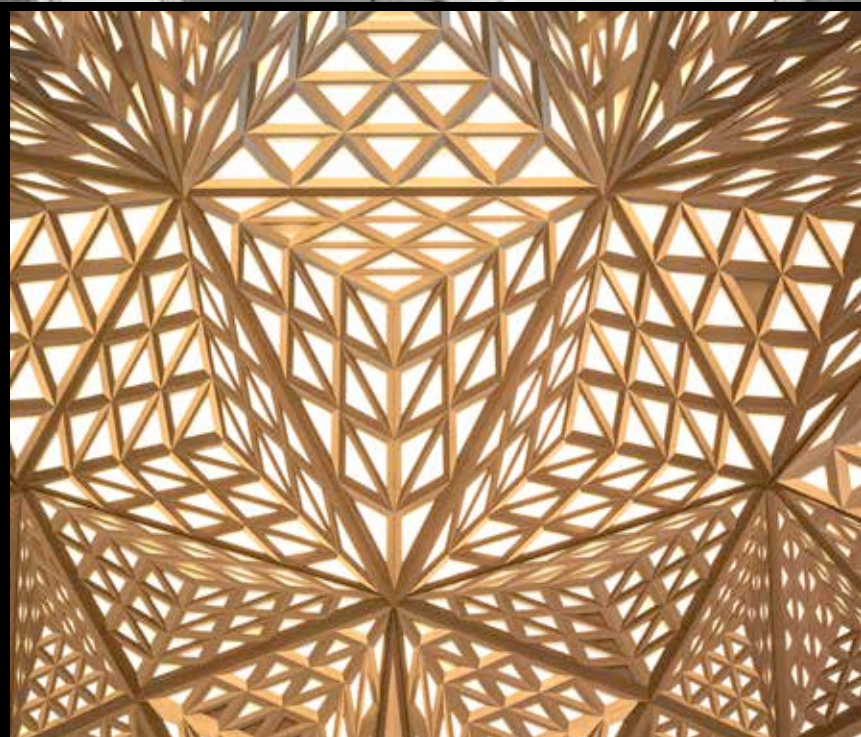
However, the exoskeleton is something new. Melding technology and imagination, it's a feat of engineering comprised of 2,500 steelwork connections and 1,200 junctions clad in 50,000 square meters of aluminum.

The barebones design of the hotel is two towers connected at the ground and roof levels. A central atrium in the middle is pocketed by three voids which create a window to the rest of the city.

Viviana Muscettola, ZHA's project director explains, "Morpheus combines its optimal arrangement with structural integrity and sculptural form. The design is intriguing as it makes no reference to traditional architectural typologies," she said.

"Macau's buildings have previously referenced architecture styles from around the world. Morpheus has evolved from its unique environment and site conditions as a new architecture expressly of this city."

To learn more about Morpheus, read the rest of this article on commarch.com.





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SPARK BUILDING

INSULATES HEATED SLABS FROM FRIGID BALCONIES WITH
STRUCTURAL THERMAL BREAKS

MADISON, WI — Spark is a state-of-the-art building near Madison's Capitol — owned by [American Family Insurance](#). The 158,000 sq ft (14,694 sq m) Spark is home to several hundred of American Family's 8,100 employees. It also houses DreamBank, a community space dedicated to the pursuit of dreams, and StartingBlock Madison, an entrepreneurial hub fostering Madison's start-up community, along with the new American Family Insurance Institute for Corporate and Social Impact.



Located in Madison's revitalized Capitol East District, where January lows average 8°F (-13°C), it features a sustainable, LEED certified design expected to yield dramatic reductions in heat energy consumption and carbon emissions.

Among the innovative energy-saving measures are a 10,000 gallon (38,000 liter) rooftop rainwater collection system, a dedicated outdoor air mechanical system (DOAS) coupled with a geo-exchange bore field, sun shades that raise and lower automatically based on sunlight intensity, and structural thermal breaks that isolate cold exterior balconies from the warm interior floor slabs.

*(AmericanFamily Insurance)
The Spark Building with balconies visible.*





Underside of slabs reveal The Spark's post-tension concrete construction supporting 10 ft (3 m) cantilevered balconies.

Balconies: an office building anomaly

"This is the first time I've done balconies for an office building," said Joe Lopera, Senior Project Specialist at Milwaukee's Eppstein Uhen Architects (EUA). "The idea was to give tenants stunning views of the Madison skyline, and encourage them to work on the balconies with their laptops in warm weather."

During frigid Madison winters, however, EUA wanted to minimize the heat loss through the balconies to improve the overall efficiency of the building envelope, a problem solved by installing structural thermal breaks at the line of insulation.

In typical balcony construction, thermal bridging occurs where a monolithic slab penetrates the insulated building envelope, allowing heat energy to easily escape through concrete and rebar into the

cantilevered balcony, which acts as a cooling fin during low-temperature conditions.

In addition to wasting energy, uninsulated balconies allow for significant cold penetration into the building, chilling adjacent interior surfaces. If these adjacent surfaces fall below the dew point, condensation occurs, greatly elevating the risk of degradation of materials and potential mold growth in wall and ceiling cavities.

Often the risk of condensation alone at the slab-to-wall interface drives the decision to incorporate a structural thermal break.



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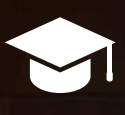
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Thermal breaks prevent condensation, improve thermal comfort, reduce energy demand

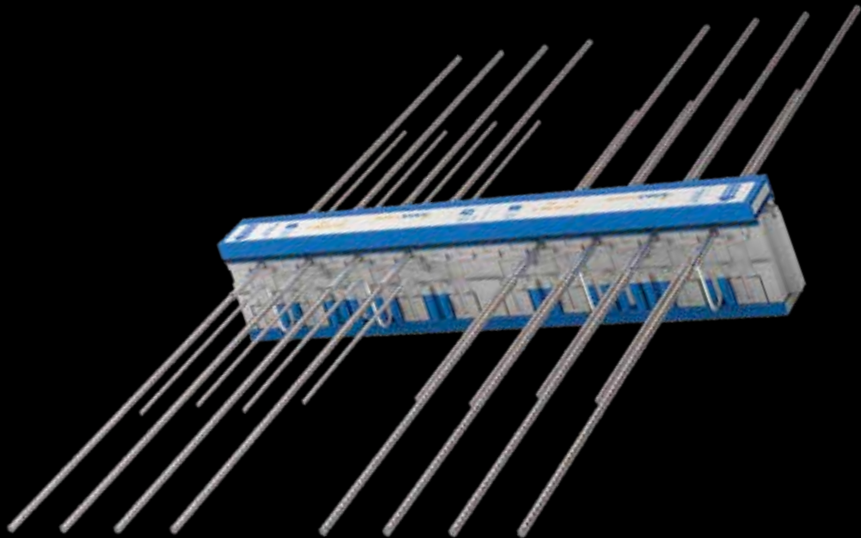
The design team averted thermal bridging issues at the balconies by installing Schöck Isokorb® Structural Thermal Breaks. Positioned within the building envelope between the interior floor slab and cantilevered balcony slab, they act as continuation of the wall insulation through the concrete floor slab. Most of the cross sectional area typically consisting of concrete and carbon steel is now comprised of a high-performing graphite-enhanced expanded polystyrene block that is less than 2% as conductive as concrete. Additional energy savings are derived from the module's stainless steel rebar, which is one-third as conductive as its carbon steel equivalent. Projecting from both sides of the structural thermal break, the rebar is engineered to fully develop into the adjacent concrete components without the need for lapping onto adjacent steel.

The assembly provides the necessary strength and stiffness to support the anticipated loads on the exterior cantilevered slab, while raising the temperature of the adjacent interior slab by up to 34°F (19°C), with three results: 1) prevention of condensation and mold growth on adjacent interior surfaces, 2) improved occupant comfort, and 3) energy savings up to 90 percent at the connection.

The Spark's five balconies contain a total of 148 linear feet (44 linear meters) of structural thermal breaks. Joe Lopera says the thermal breaks worked well with the post-tensioned concrete structure, allowing for the 10 ft (3 m) long and 12 in. (305 mm) thick balcony slabs to freely cantilever, for a more elegant building. "Structural thermal breaks gave me more freedom as a designer," he adds.



Underside of slabs reveal The Spark's post-tension concrete construction supporting 10 ft (3 m) cantilevered balconies.



Stainless steel tension and shear rebar of Isokorb® structural thermal break ties into carbon steel rebar of interior and exterior slabs prior to casting.

Early planning led to success

The architect, structural engineer, contractor and structural thermal break supplier conducted early planning and design meetings to determine the best way to install and integrate the structural thermal breaks with the post-tensioning layout.

Eric Lewis, project manager with J.H. Findorff & Son Inc. Construction, of Madison and Milwaukee, said, "This was a first-time experience with Schöck's structural thermal break technology. But the modules became easy to install after the pre-planning and design meetings with Schöck as well as their site visits and instructions and guidance to our crews at first install."

Lewis added that the structural thermal breaks "allowed us to pour the deck and the balcony in the same day, improving the overall schedule. The thermal breaks eliminated the need for the usual edge forms that create the joint where the deck joins the balcony slab, saving time and materials to prep the balcony slab after pouring the main deck and letting it set up enough to strip the form, which is the typical sequence."

Eric Feile of Pierce Engineers, a consulting structural engineering firm based in Milwaukee, said, "There's always the danger of elements like structural thermal breaks being 'value engineered' out of the project. But we fought for them and they stayed a part of the project."



Nate Lambrecht, Midwest and Western US regional manager of Schöck North America, pointed out that while The Spark is among the first applications of concrete-to-concrete thermal breaks in Wisconsin, Isokorb® installations within the US are becoming more commonplace. With global applications exceeding 10 million, North America will surely catch up," he said. "As municipalities and states increasingly adopt energy codes requiring continuous insulation, and owners look for practical solutions to limit liability and durability concerns, the inclusion of structural thermal breaks as 'best design practice' will become more prevalent."

"The Spark application has planted the seed for future use of structural thermal breaks," Feile concludes.

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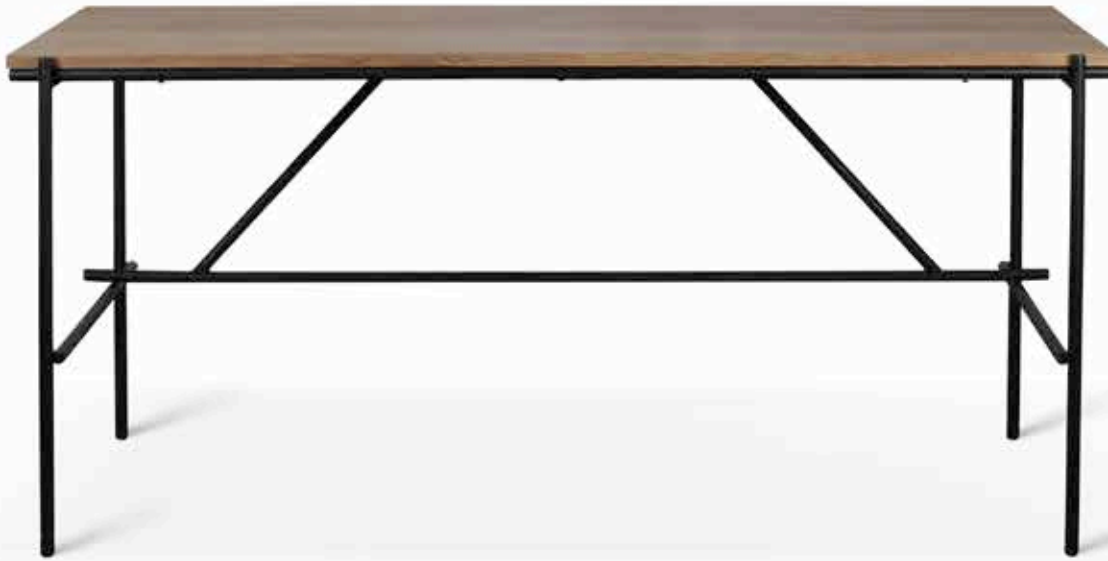
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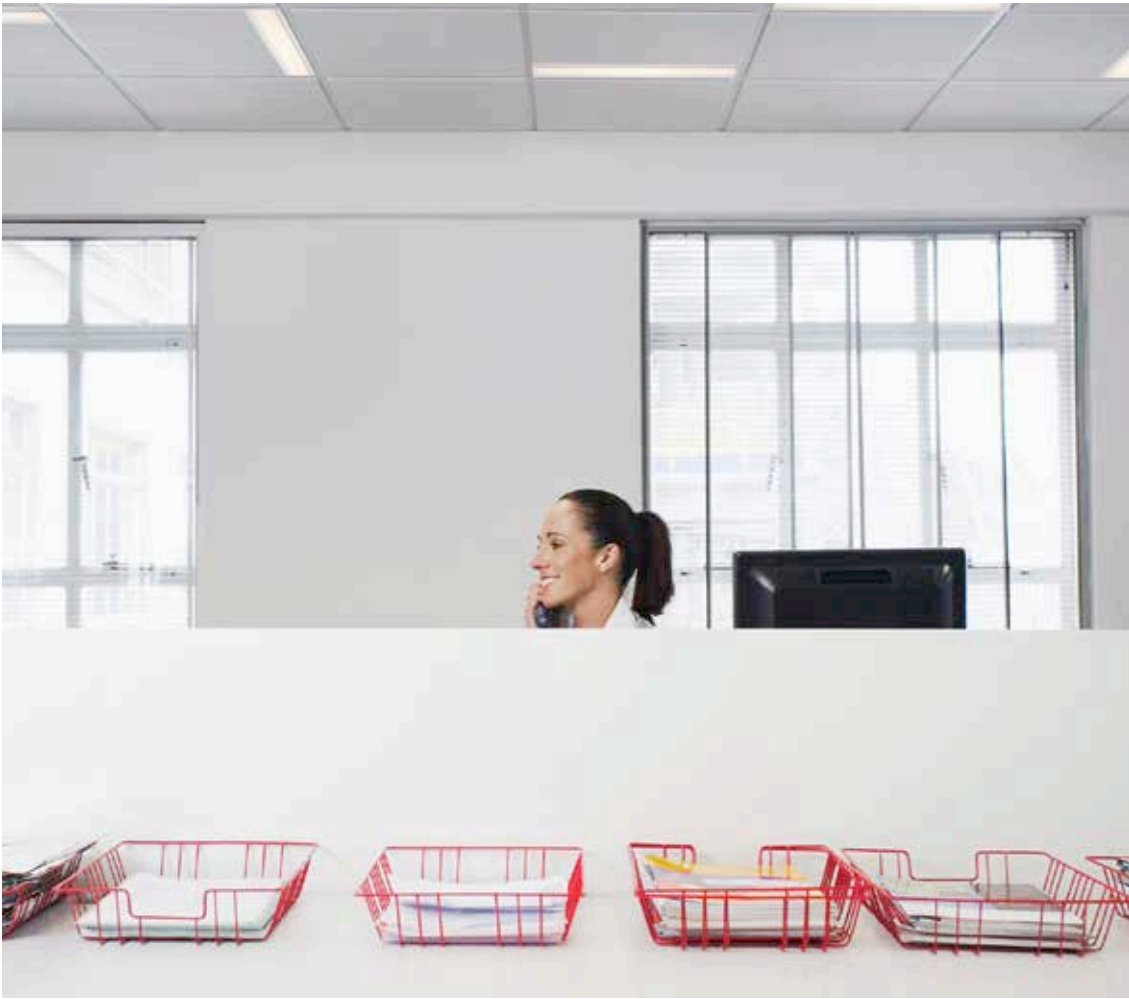
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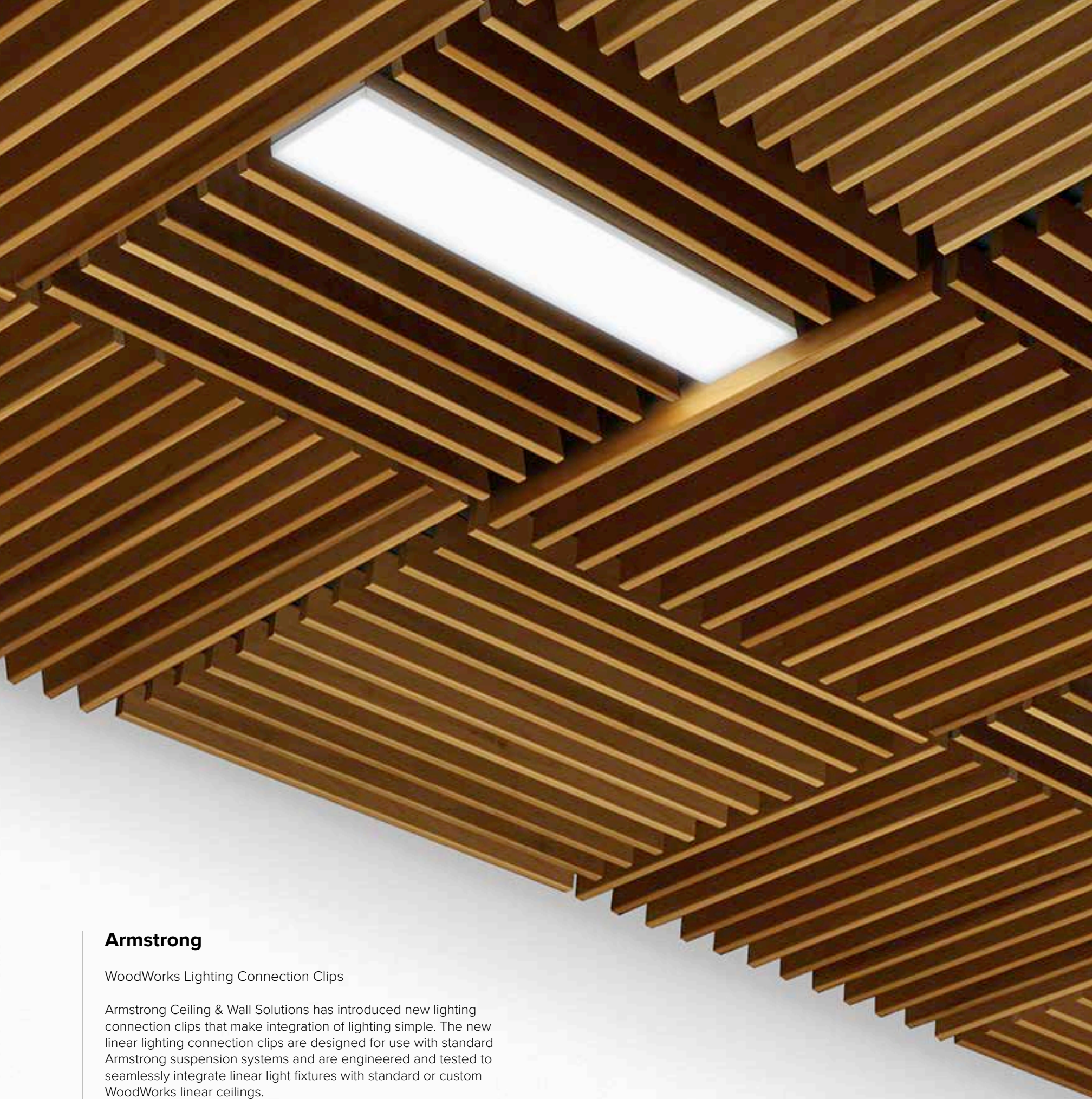
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The Gallery Series is a family of LED luminaires designed to serve as the most versatile solution available, through profile, beam wash, wall wash and flood options across a variety of color temperatures. With a 92+ CRI engine, 4000 lumens of output and dimming options that include local on-board dimming, Mains Dimming, DMX/RDM, 0-10VDC and DALI, the Gallery Series also offers a number of mounting options making it an ideal lighting solution where aesthetic and performance expectations are high.

atlasrwi.com





Photos courtesy of Jose Antonio and Jagar Architecture.

Select Interior Concepts

Rawtech Porcelain Tile

Select Interior Concepts’ Pentel Surfaces branch in Van Nuys, Cal., provided the flooring tile for two Next Health locations in Southern California. The Floor tile is Rawtech porcelain (tile in Raw-Dust and Raw-Coal).

Porcelain is a very versatile material – it’s extremely dense and is resistant to acids, heat, and scratching. Porcelain is also nonporous so it doesn’t absorb water, making it hygienic, durable and easy to maintain. Modern technology allows porcelain to be made in a wide range of color, size, and texture options that can look like almost anything from wood planks to stone, marble, or concrete. Porcelain is available in full slab sizes as well, which can also be used on flooring installations.

selectinteriorconcepts.com



Website



Ligne Roset

Phileas

Named after the 1872 Jules Verne character, Phileas is inspired by travel and nostalgia, which anchor it in reassuring historical continuity. Its vertical quilting recalls the upholstery of 1950s automobile seats, banquettes from the Orient Express, and curves of the balloons of the Montgolfier brothers. When designing the ergonomic seating solution, Philippe Nigro turned to Ligne Roset's expertise in the field of foams and the sophisticated execution of their upholstery, the fruit of long experience in quilting and sewing covers.

ligne-roset.com



Website



FSorb

Acoustic Panels

Attractive, durable, and easy-to-install FSorb acoustic panels meet the growing demand for effective acoustic solutions for commercial work environments. Ideal for open plan offices, this low-cost, environmentally-friendly product helps reduce excess ambient noise and enhance productivity and human well-being. Available in a choice of four thickness options and twenty solid color options, FSorb panels can be cut in custom shapes and sizes, and provide endless options for screen printing.

f-sorb.com

  Website

1/2 Page Ad

GLOBAL LAND CRISIS

“Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo. Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequi nesciunt. Neque porro quisquam est, qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit, sed quia non numquam eius modi tempora incidunt ut labore et



the **world population** is projected to increase by about

35%

to **9.7 billion** in 2050, with **rising demands** for agricultural products including food, feed, fiber, and fuel.

climate change
will accelerate the danger
of **severe** food shortages.

humans use approximately

72%

of the global **ice-free** land surface, with land use contributing around 23% of total **human-caused** greenhouse gas emissions, primarily through deforestation, habitat conversion for agriculture, and livestock emissions.

the food sector alone is responsible for

75%

of deforestation worldwide, with the greatest pressure on forests taking place in the tropics. It is also a **major driver** of savannah and grassland conversion.



when forests are
destroyed

that **carbon** is released to
the atmosphere, **accelerating**
global warming.

more than
10%
of the world's
population remains
undernourished.

beef, soy, and palm oil

drive the **majority** of tropical deforestation.

beef has by far the
largest impact.



Deforestation accounts for around

10%

of total heat-trapping emissions—roughly the same as the yearly emissions from **600 million cars**.

latin america,

is responsible for **destroying 2.71 million** hectares of tropical forest each year—an area about the **size of the state of Massachusetts**.

as many as

80%

of people living in **rural areas** in developing countries rely on traditional **plant-based** medicines for **basic healthcare**.

globally

3.2 billion

people are affected by land degradation, especially rural communities, smallholder farmers, and the very poor.

land
pollution

causes us to lose **24 billion** tons
of top soil every year.

more than
80%
of the items in landfills
can be recycled.

around 1.6 billion people
depend on forests for their

livelihood.

A NEW DECADE:

PREDICTIONS FOR THE 20'S

By Shawn Draper, Contributing Editor



We are entering a new decade and it seems appropriate if not necessary to share with you our predictions for the 20s.

We can usually point to larger business and cultural forces as the impetus behind those changes. As we look forward, we predict these forces will be even stronger. They will facilitate faster, more dynamic changes in the construction industry.

With this in mind, we are pleased to share our predictions for the 20s.

Globalization

The gravity of the implications of climate change will force the construction industry to change products, materials, building practices and codes faster and with more urgency than ever before. Businesses that see globalization and the demands of climate change as an opportunity will be strikingly successful.

May I Take Your Order?

The construction industry will finally embrace the ecommerce business model. Online ordering, logistics, payment, order history and customer service all go online to meet the demands of consumers.

Generation XYZ

The Wall Street Journal recently reported 21 million homes owned by Baby Boomers will go on the market in the next twenty years. That is a huge number, and we predict this will lead to a remodeling boom.

Putting the 'Social Back' in Social Media

In the coming decade, we will see successful businesses continue to acquire the skills and experience to be professional self-publishers of meaningful content for their targeted groups and communities. At the same time, businesses that refuse to take this approach will gradually fade away.

The Cheshire Cat

The Cheshire Cat in Alice in Wonderland got it right when he said, "If you don't know where you are going, any road will get you there." Whether it is circular or a funnel, businesses must know their customers and their journeys. It is paramount to their success.

Bird in the Hand

We predict there will be a dedicated effort to embrace existing customers as a source of preferred business growth. No longer will it be an afterthought. Existing customers will be the focus of growing businesses.

Employee Advocacy

At the end of most all meaningful transactions is a personal interaction. As more companies recognize this, they will give their employees the best tools to share the advocacy with their customers and the marketplace.

No More 'Good Intentions'

The construction industry will finally wake up and embrace the Hispanic workers and business owners that represent more than a quarter of the professionals in the industry. The best businesses will talk to and work with the Hispanic customers directly with respect for their culture and language of choice.

Feel Something

We mentioned before, we believe to connect with people on a personal level is the most desired and important part of business.

We have faith that the construction industry will recognize and fully embrace the importance of the people they employ and serve. Wages, benefits, health care, education and the well-being of the people they touch will become increasingly important to all involved in making decisions.

Banner Advertising is DEAD

As the interruptive approach to advertising continues to decline in effectiveness, marketers will come to their senses and stop buying digital banner ads.

Period.

We are fortunate to be a part of the construction industry. The new decade is filled with incredible possibilities for remarkable innovation and growth. We look forward to joining you in being an important part of the new 20s.

**To read the full article,
visit <https://www.commach.com/predictions-for-the-20s/>**





Vitro Architectural Glass

Solarban Acuity Low-E Low-Iron Glass

Upgrade from coated clear glass for just a fraction of the total installed façade cost. The new, affordable Solarban Acuity series by Vitro Architectural Glass provides the truly clear look you want. Acuity™ low-iron glass is 60 percent less green than ordinary clear glass and can be combined with the full range of Solarban solar control low-e coatings for outstanding performance.

Upgrading a low-e coated clear insulating glass unit to Solarban Acuity glass typically will increase the total installed curtainwall cost by only \$1–2 per square foot. Sample kits are available online.

vitroglazings.com/acuity

  Website



ACOUSTICS of EDUCATION FACILITIES

By Gary Madaras, PhD, acoustic specialist at Rockfon

Whenever the topic of school acoustics comes up, the discussion most frequently centers on the ability, or inability, of students to understand their teachers inside classrooms.

While this is arguably the most important acoustical aspect inside education facilities, it is certainly not the only one. Schools serve as a perfect example of facilities that have a wide variety of room types and desired acoustic experiences.

A designer or specifier should not be overwhelmed by the variety of room types in schools. The first step in the acoustic planning process is to categorize each room by its core function as one for speech, comfort or music.

Because of the intimate relationship between room size, shape, finishes, acoustics and core function, an advisable approach is to use the acoustical purpose of the room to drive its aesthetic design.



Rooms for Speech

Rooms for speech inside educational facilities can vary in size and function from a 10-seat meeting room to a 100-seat lecture hall to a 1,000-seat theatre.

As a speech room increases in size, it becomes more difficult to maintain speech intelligibility and more critical to optimize the acoustics of the room. It is necessary to view the room as a passive amplification system.

Larger speech rooms naturally have lower signal-to-noise ratios because the average listener distance is greater and the speech signal has farther to travel. Therefore, speech rooms should be as small as possible for the intended capacity.

For more information about designing rooms for speech, visit [xxxxx](#).



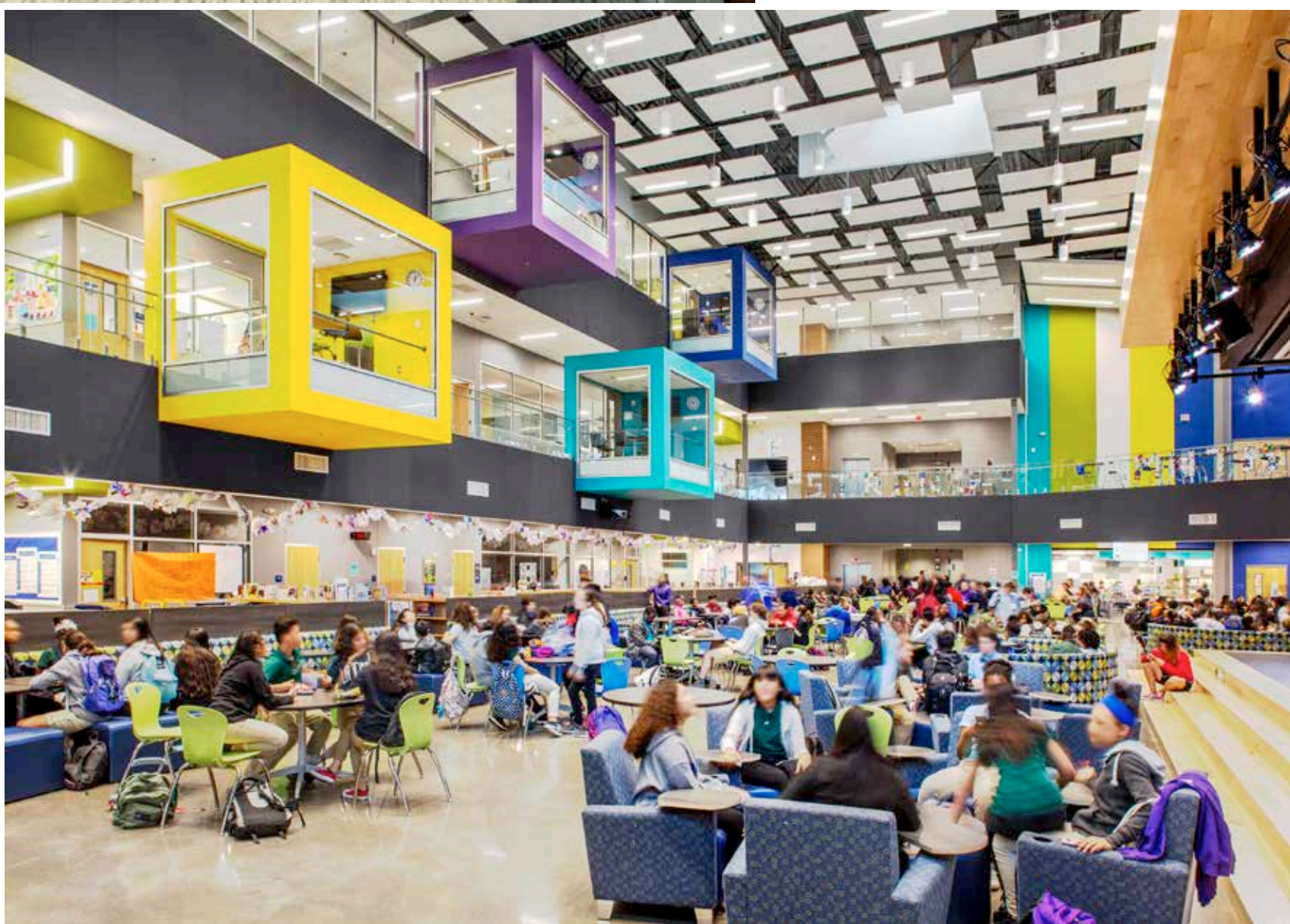
Rooms for Comfort

Many rooms in educational facilities are not used for understanding speech or appreciating music, but are still occupied by people that need to be acoustically comfortable for the room to be successful.

The acoustic goals in these comfort rooms can vary from quiet relaxation or contemplation in an area of respite to individual concentration in a niche of a library. Rooms or spaces for acoustic comfort in educational facilities also include common areas, corridors, computer laboratories, cafeterias, natatoriums, gymnasiums, media centers, offices and many other types of rooms.

Acoustic comfort does not equate to silence. In fact, silence is quite uncomfortable for people and is not the goal even if it could be easily achieved

For more information about designing rooms for comfort, visit [xxxxx](#).





Rooms for Music

Rooms for music instruction, practice, rehearsal and performance are the most critical and challenging from an acoustics perspective inside educational facilities.

The primary acoustics goal is to make the music clear, full, loud, enveloping and enjoyable. Most of the music rooms in an educational facility are for individual or small group instruction, or for practice and ensemble rehearsals.

Unless the facility is a music college, there is usually only one or two main music performance spaces, and even those are typically multi-purpose in nature. This adds a level of complexity to the acoustic design because the rooms need to be appropriate for diverse functions with different acoustic goals.

Due to the critical nature of music rooms, it is highly advised that designers seek out an experienced acoustics consultant, such as a member of the National Council of Acoustics Consultants (NCAC).

For more information about designing rooms for speech, visit [xxxxx](#).





C A S E S T U D Y

An Intimate Feeling Includes the Ceiling

Project: Mount Holyoke College Student Dining Commons
Location: Graton, California
Architect: Bergmeyer, Boston
Client: Mount Holyoke College

A student cafeteria doesn't have to feel like a student cafeteria. The new Student Dining Commons at Mount Holyoke College is intended to offer an inviting, personal experience that evokes some of the school's long tradition of intimate dining rooms.

An important element of that effect is an unusual ceiling. It features thermoformed ceiling panels from Ceilume combined with conventional flat mineral fiber panels that are used over seating areas around the periphery. The transition between these two types of ceilings is an intermingled effect that helps lead diners from the food service to seating, while also helping to break the large volume of the space into more intimate areas.

"We wanted it to be a place where students felt comfortable," recalls Krista Easterly, Interior Designer at Bergmeyer. The Mount Holyoke College Dining Commons received an award for Outstanding Design from American School & University magazine and has apparently achieved its goal of creating an inviting place for students. "It's been wildly successful," Easterly relates. "They're selling more meals than they ever imagined. Everybody likes what we created there, so I think it was a success."

[CA](#) | [Website](#)



CASE STUDY

Side-by-Side Comparison

Project: Hook and Ladder Apartments
Location: Minneapolis.
Architect: LHB Architects
Client: Frerichs Construction Company
Location: Glenbrook Building Supply, Inc & Edgebuilder Inc.

Minnesota’s first-ever Passive House multifamily unit, the Hook and Ladder Apartments, is set to prove just how much of a difference Passive House construction can make in operations cost and occupant comfort compared to buildings designed to conventional energy codes. LHB Architects designed the Hook and Ladder complex as a side-by-side experiment with two adjoining, nearly identical apartment buildings.

Passive House standards require upgraded ventilation to improve air quality, as well as tight energy-usage restrictions for heating and cooling. To block pathways for hot or cold air traveling out of the building, and to preserve energy, the project team focused on providing continuous insulation (ci) in the building envelope.

To create the apartment complex’s efficient building envelope, the project team selected Hunter Panels’ Xci NB. The high-thermal rigid insulation panels are composed of a closed-cell polyisocyanurate (polyiso) foam core bonded to a premium performance coated glass facer on one side and either OSB (7/16, 5/8”) or plywood (5/8”, 3/4”) on the other.

The new addition to the vibrant Northeastern Minneapolis Arts District will also include exhibit space for artists residing at the Hook and Ladder Apartments to display their creations. The end goal of the project is to couple energy-efficiency with outdoor and indoor amenities to unify a community of residents through art and healthy living spaces.



C A S E S T U D Y

Innovative roof drainage system keeps 100-year-old schools from closing

Project: Roof drainage renovation

Location: Milwaukee

Architects: Atlas Roofing Corporation

Client: Milwaukee Public Schools

When Dennis Fula took over responsibility for the Milwaukee Public School Systems' (MPS) roof maintenance more than 20 years ago, he realized many schools were in danger of closure due to unsafe conditions. Prior to Fula joining the team, MPS had simply added new materials on top of damaged sections of the roof, resulting in pooling water, drainage problems and other issues.

Fula partnered with Atlas Roofing Corporation to develop a 20-year program to extend the life of every roof. The teams worked together to implement Atlas' Certified Drainage Program, which utilizes tapered polyiso insulation. While maintenance is still required, the number of repairs needed each year has dramatically reduced and roofing systems are expected to last at least 30 years.



Website

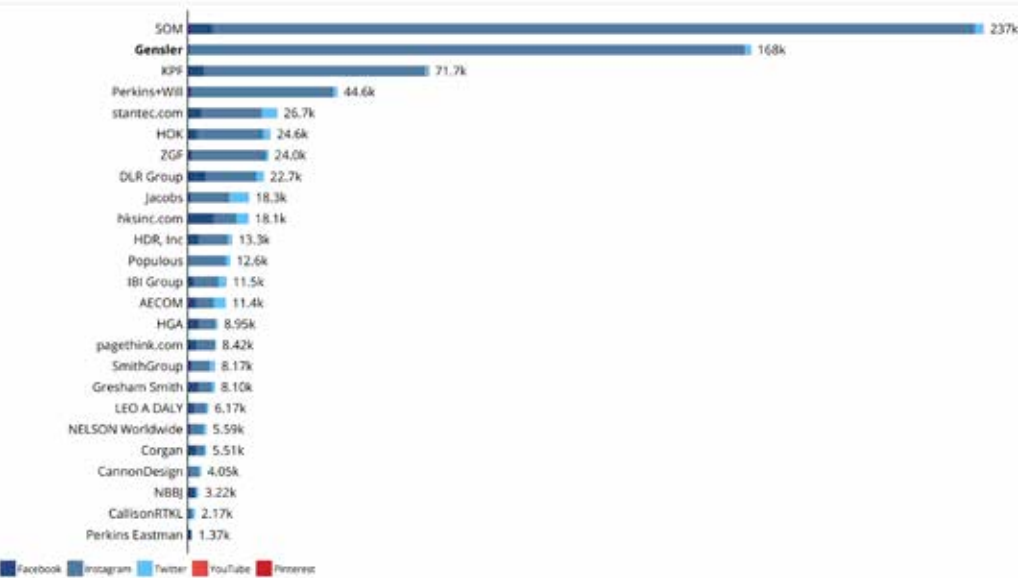


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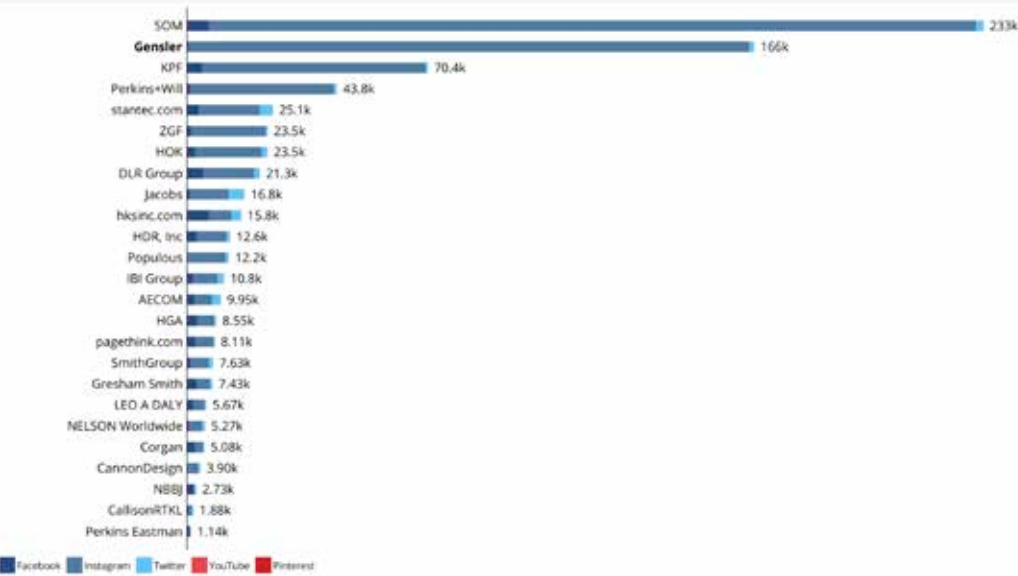
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ARCHITECTURAL FIRMS
@N SOCIAL MEDIA

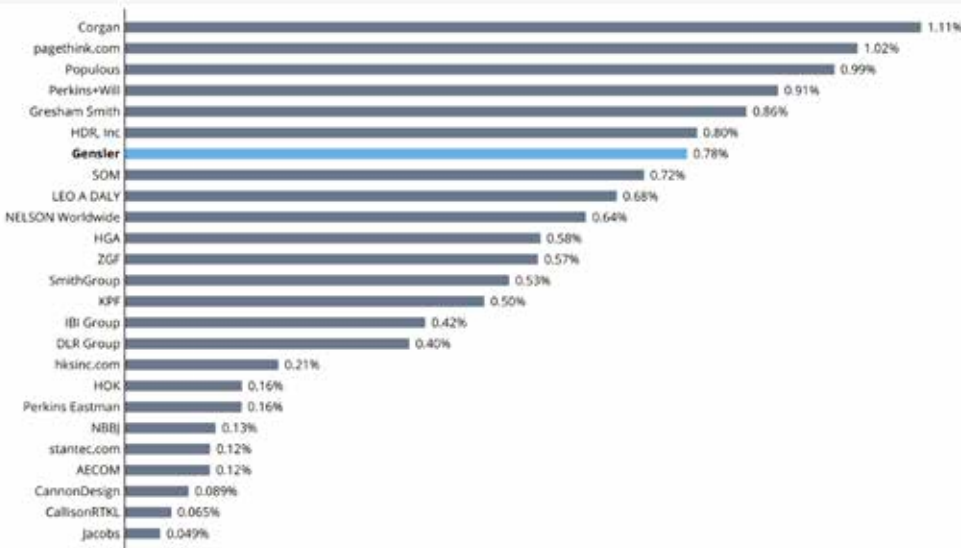
Cross-Channel Engagement Total
Jul 1, 2019 - Jan 6, 2020



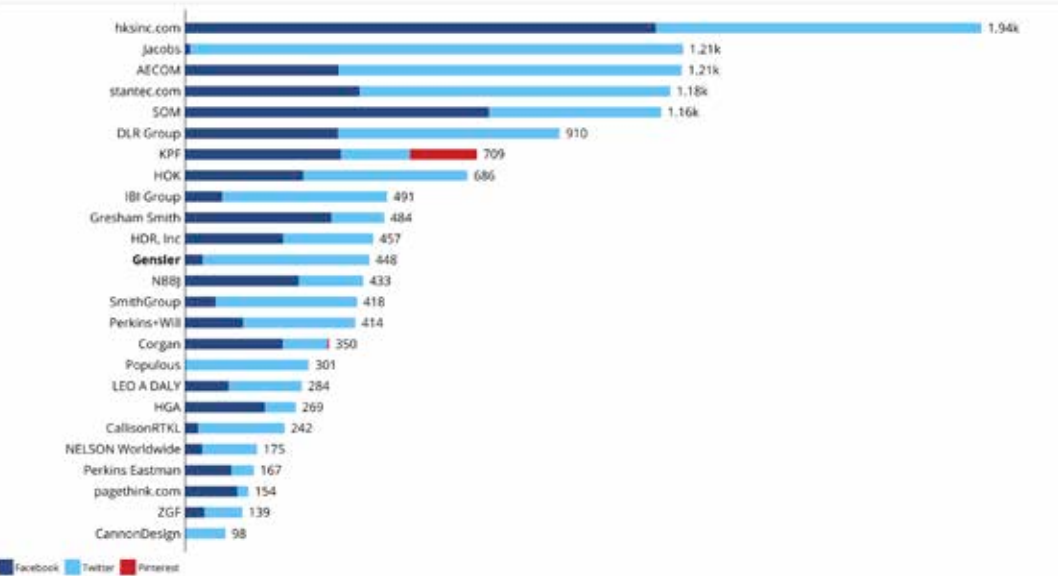
Cross-Channel Applause
Jul 1, 2019 - Jan 6, 2020



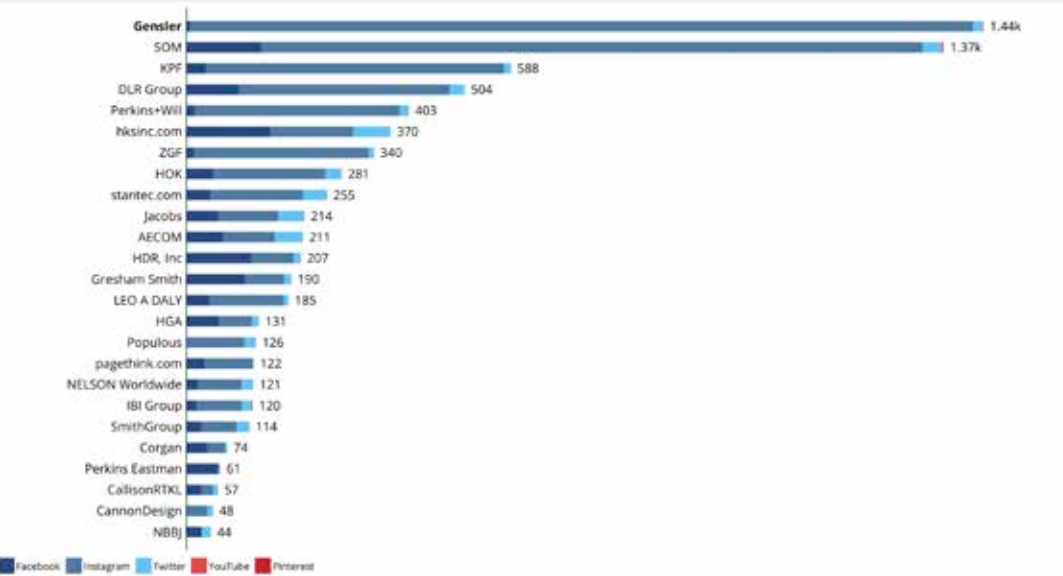
Cross-Channel Engagement Rate / Post
Jul 1, 2019 - Jan 6, 2020



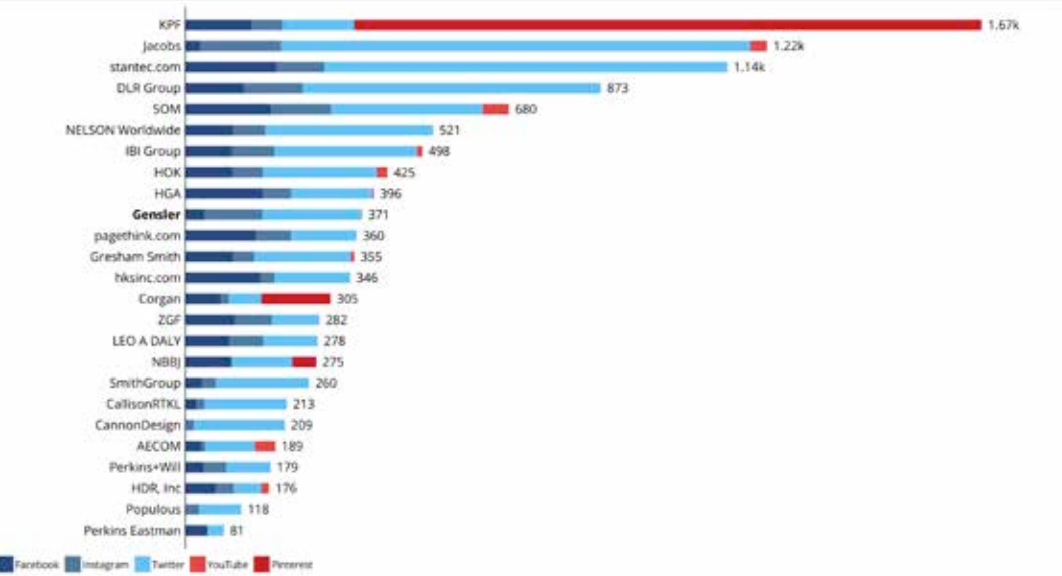
Cross-Channel Amplification
Jul 1, 2019 - Jan 6, 2020



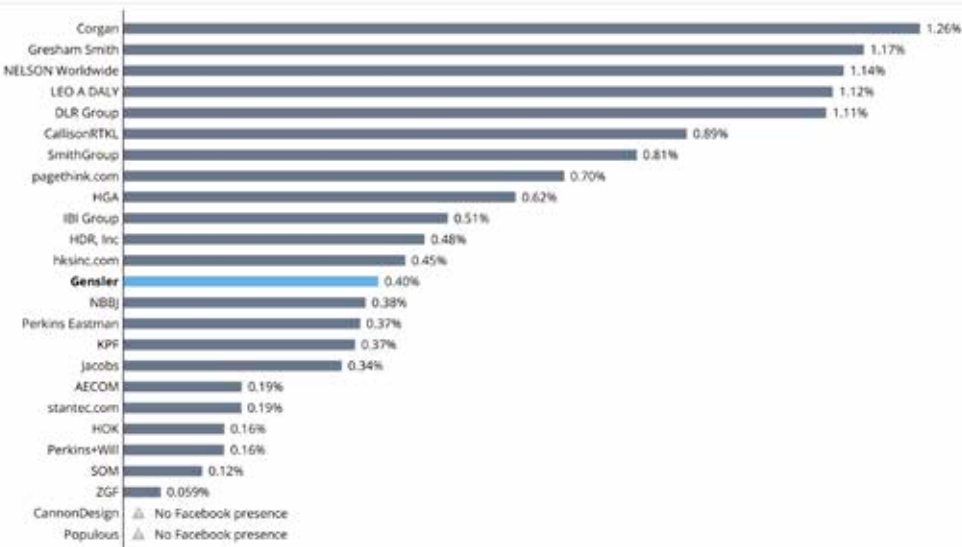
Cross-Channel Conversation
Jul 1, 2019 - Jan 6, 2020



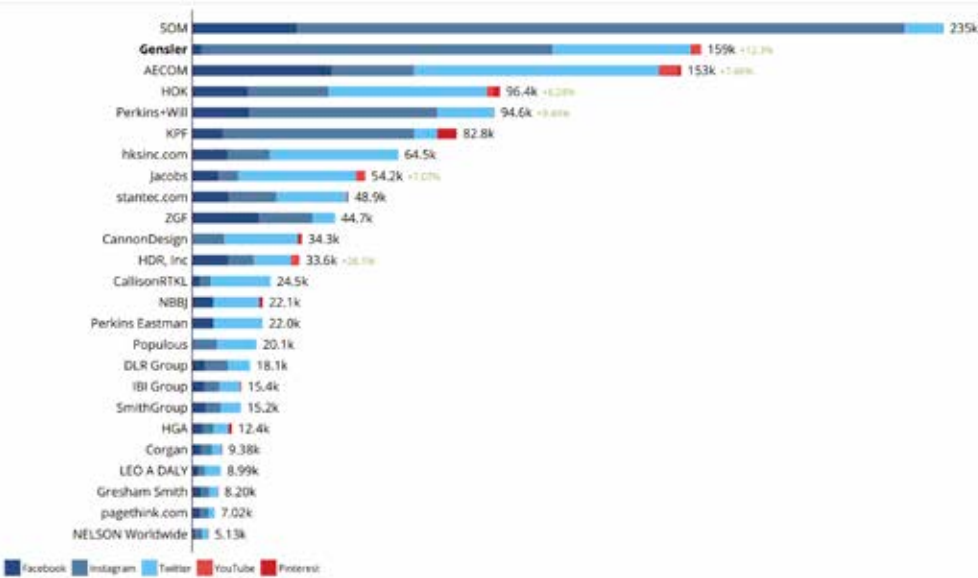
Cross-Channel Posts
Jul 1, 2019 - Jan 6, 2020



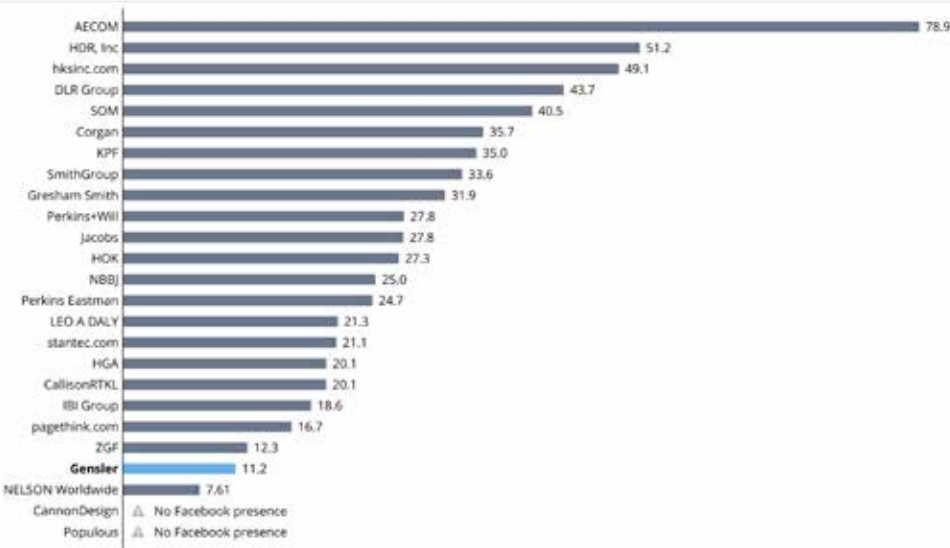
Facebook Engagement Rate / Post
Jul 1, 2019 - Jan 6, 2020



Cross-Channel Audience, with % Change
As of Jan 6, 2020 vs. Jan 30, 2019

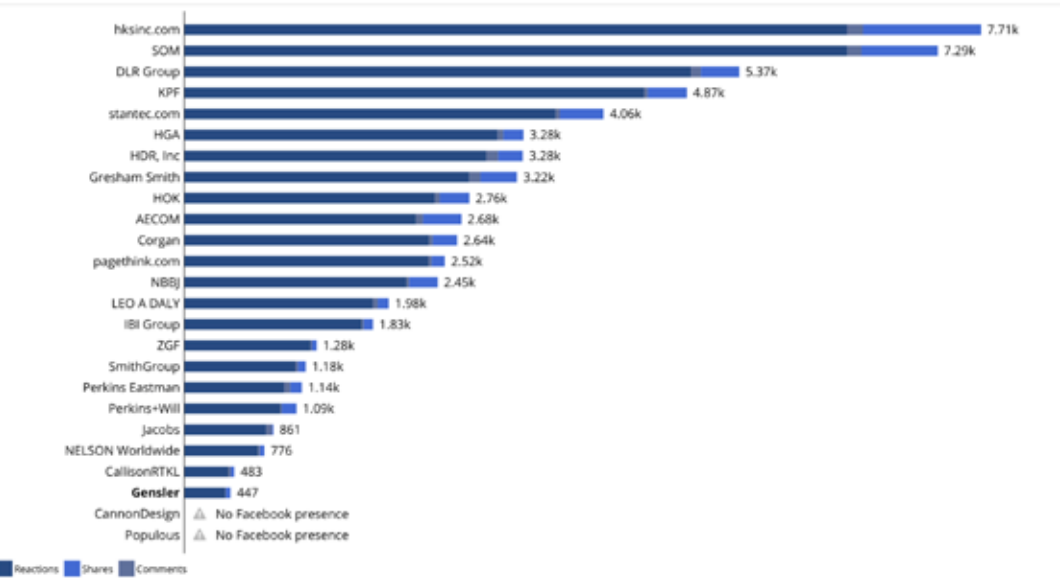


Facebook Engagement Total / Post
Jul 1, 2019 - Jan 6, 2020



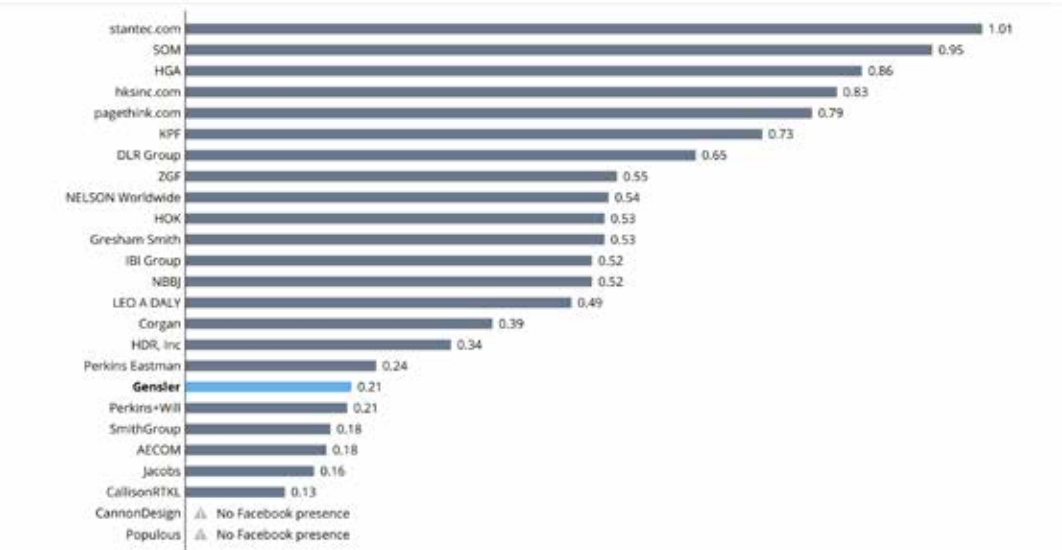
Facebook Engagement Total

Jul 1, 2019 - Jan 6, 2020



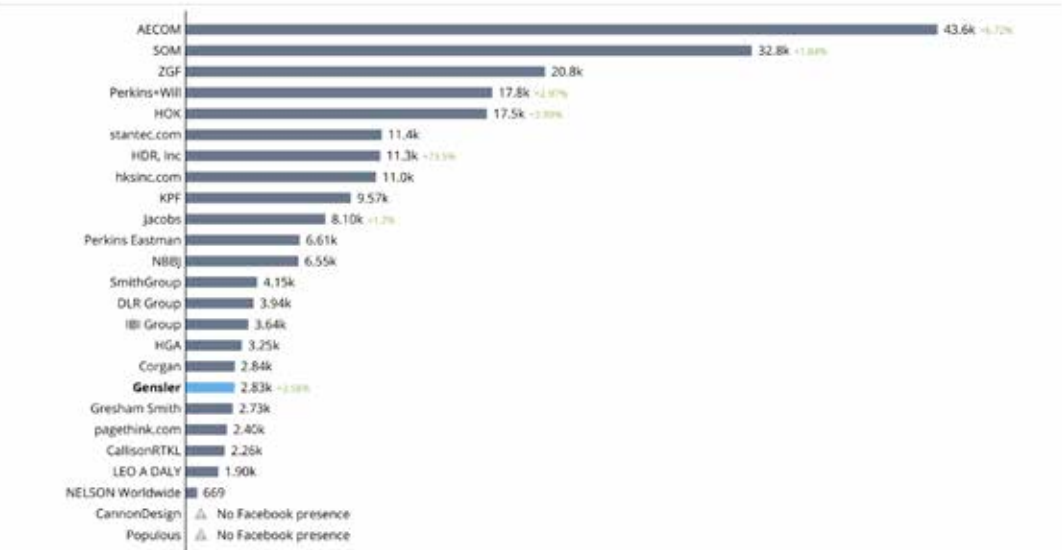
Facebook Posts / Day

Jul 1, 2019 - Jan 6, 2020



Facebook Page Fans, with % Change

As of Jan 6, 2020 vs. Jan 30, 2019



ONE on ONE

ONE on ONE



Stonhard

Liquid Elements

Stonhard's Liquid Elements brand combines the well-known performance of Stonhard resinous floors with bold, artistic design elements to bring the best of both worlds to commercial interiors. Durable, stain-resistant and easy-to-clean floors for work environments, hotels, universities, stadiums and retail spaces.

liquidelements.com



Website



C A S E S T U D Y

Science of Play

Project: Boston Sports Institute
Location: Wellsley, Massachusetts
Designer: Dacon, Boston
Clients: Edge Sports Group

Dacon has completed the new Boston Sports Institute (BSI), a 130,000 SF professional-grade sports facility in MetroWest Boston. BSI includes two ice rinks, a suspended track, indoor turf field, therapy pool and competitive repurposed pool from the 2012 Olympic trials.

Created using a sports ecosystem model, BSI encompasses the related businesses of sports medicine, tutoring services and quick dining – a mixed-use concept where community and customer-centric value chain creation are partners.



Website

From a design perspective, creating symbiotic environments within extreme temperature conditions appears paradoxical. To address the critical operation challenge of multiple, high-energy demand environments, the following energy conservation measures were implemented:

- Thermal energy is reclaimed from the ice rinks to heat the pools via loop systems with heat exchangers and circulation pumps.
- LED lighting and high efficiency water heaters are used for domestic and ice resurfacing alongside a state-of-the-art ammonia refrigeration system.
- The 100,000 SF roof and electrical infrastructure is prepared for a 900kW photovoltaic array to contribute to the town's carbon emission and electricity reduction goal.



Alongside environmental, financial, health and safety considerations, BSI's design encompasses the full range of diversity. The practice of sport is a human right, as such thoughtful consideration was given to creating a facility welcoming all ages, lifestyles and abilities.

Propelled by technology, activism and cultural changes, sport is a powerful entertainer - a content creator and media draw. Within the sports ecosystem model, alignment of short- and long-term goals are vital components to business success. Play is an essential community value for physical, cognitive and emotional strength. It enables human beings to develop capabilities, tolerance and inclusion, creating healthier communities.



ONE on ONE

ONE on ONE

ONE on ONE

ONE on ONE

ONE on ONE

ONE on ONE

Classifieds



Villian 52 x 52 x 3

J O H N P H I L L I P D A V I S

private and corporate collections

w w w . j o h n p h i l l i p d a v i s . c o m

