

the alliance

always aligned with our clients in mind

3.2018

VOLUME THREE

ISSUE ONE

understanding & applying

the new reality of

DESIGN



as co-creators, Strang clients
bring their virtual vision to life



STRANG

Madison ■ Milwaukee



The View From Here

Well Hello Again

And Welcome To This Issue Of The alliance

Before We Jump Too Far Into This Issue, Allow Me To Share Sincere Appreciation Of My Colleagues Here At Strang. I Am Proud To Say, Each Of You Have Contributed To Our Strong Success.

The simple fact is, YOU ARE OUR SUCCESS. Longstanding clients return time and again seeking your guidance. New clients reach out, because of you. And potential employees inquire, "How can I get in at Strang", because of you.

Each day, you bring imagination, resourcefulness, character, tenacity and humor to the office. You share insights, expertise and an unwavering commitment to excellence with colleagues and clients alike.

Thank you for all that you do. Strang people are simply the best.



Larry Barton
President & CEO



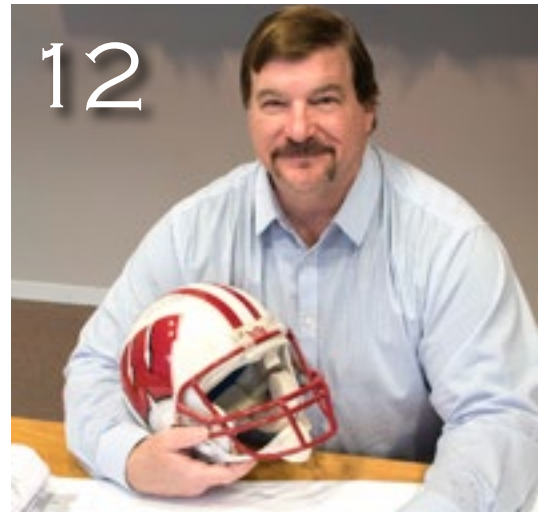
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APPLYING THE NEW REALITY OF DESIGN

4. Virtual Reality has transformed the industry in myriad ways that benefit both designers and their clients.

STRANG'S MILWAUKEE REGIONAL OFFICE

10. By opening a new Milwaukee Regional Office and equipping it with advanced technology, Strang will serve clients from that region through both "High Tech and High Touch" encounters.

TACKLING FOOTBALL AND ARCHITECTURE

12. Chuck Bernhagen found a way to combine his interest in both football and architecture even after his playing days ended.



The New Reality Of DESIGN



VIRTUAL REALITY SOFTWARE ADVANCES ARCHITECTURAL INDUSTRY IN NEW WAYS

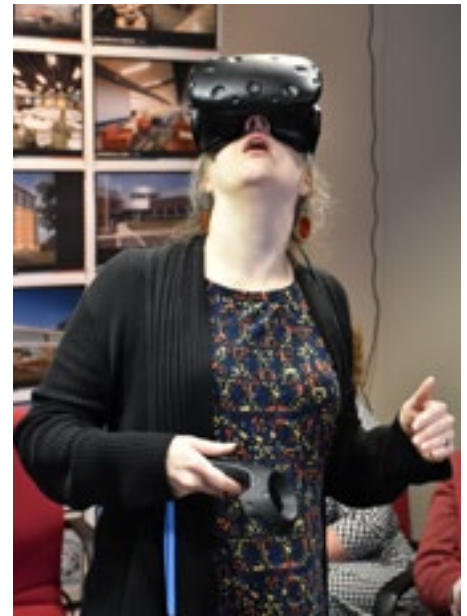


As people lined up behind him waiting their turn, an employee of Summit Credit Union slipped on a set of virtual reality goggles, clicked the controller in his right hand and began exploring his company's yet-to-be-built headquarters.

"Amazing," he said as he maneuvered down a corridor and around a corner. "This is where I'm going to sit."

Exploring places in virtual reality can be magical, fun and exciting. In the architectural industry, VR offers an opportunity to experience the built environment during the design process. In this way, the technology is becoming a critical tool to help collaborate, coordinate and communicate design intent.

Virtual reality creates opportunities for designers to assess various design elements as they move through the virtual space. It bridges the communication gap between architects and clients, who may find it hard to follow two-dimensional plans. It helps building owners better understand how industrial equipment might fit into the space, or how a floor plan will





help the work flow process. There is even an element of quality control as design professionals can see inside their floor plans to make sure all the elements are where they're supposed to be.

Virtual reality dates to the 1950s when the U.S. Air Force began training pilots using flight simulators. It advanced in the 1970s with Hollywood using it for special effects and again in the 1980s for the gaming industry. Today, a variety of industries are using virtual reality, from military and healthcare to education and marketing.



“Virtual reality gives our designers a realistic sense of scale,” said Peter Tan, Strang’s Chief Design Officer.

“Experiencing what it feels like being in the building offers us an opportunity to study spacial relationships. It also helps our clients by making the design process more thorough and more realistic.”



The technology is not only transforming the design process, but

**integrating
clients into the
process in a more
intuitive way.**

VR creates another opportunity to communicate design intentions between disciplines.

Using virtual reality helps designers think of the plan more as a model with all the elements included. But to take advantage of the technology, architects, engineers and interior designers must create 3D renderings showing detailed elements in every square foot of the plan. No longer is it acceptable to simply identify a wall color, light fixture or



window tint with a text box. Now designers must show these elements visually.

The benefit is that each team member can view a realistic model of the entire plan throughout the design process. Working in Strang's VR Suite, designers from different disciplines communicate design intentions by showing, not telling. They may see how the lighting choice impacts the selected wall finish, and can make adjustments in real time. It compacts the collaborative process and assures everyone is on the same page early in the design process.

VR can also be used as a natural method of quality control, catching and correcting design oversights. Certainly, there are many ways to catch missing components or building elements that overlap and clash with one another. For



DREW MARTIN

DIRECTOR | DESIGN VISUALIZATION



They better understand how their own design elements fit with in the whole.

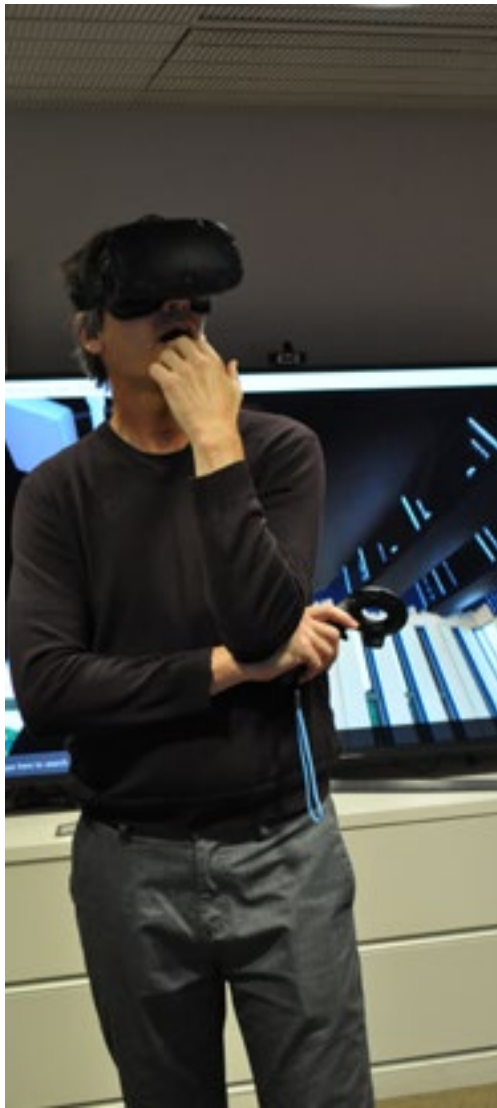
This supports team coordination and improves the project quality



instance, clash detection is used to assure components such as plumbing does not clash with structural beams.



But VR takes clash detection one step further. Designers can walk into the virtual space and see things that clash detection may not, such as a beam jutting through the middle of a door opening. The beauty in any integrated effort is that errors are caught early and corrected, saving both time and money.



For designers, there are many advantages to using VR. But the technology makes its biggest impact in the client experience. As a firm focusing on collaboration with its clients, virtual reality became a difference-maker. It has helped to bridge any communication gaps between designers and their client.

For most clients, seeing designs in two dimensions on a blueprint or even 3D on a computer screen requires some imagination to visualize a space. What may not have been clear in the description and images of the designed space becomes obvious when viewing it through VR goggles.

By allowing them into the virtual space, they get to experience the built environment even before the design is complete. VR also helps client and designers enhance the space with material and furnishing selections, site lines and sustainable decisions.

By experiencing what the new space will feel like before it's built can be a great advantage to our clients. With this unique perspective, they can involve others from their organization directly in the design process, build excitement for new space and even use it for capital campaigns, building another level



of anticipation and excitement among board members and benefactors and others.

There are added advantages when designing performance spaces of various levels of seating and angles to the stage.

Using VR, a designer can feel the steepness of seating in an auditorium and experience how safety bars and other building elements impact sightlines.



While VR may be an additional step, it actually compacts the design process, allowing clients and designers to understand each other more quickly and more thoroughly. In fact, it guides all aspects of an integrated design process, savings both time and money, and ensuring an optimal client experience.





Our Milwaukee Regional Office



Enhancing The Client Experience

Having architects, engineers and interior designers working side-by-side was the genesis for Strang's proprietary, synergistic protocol entitled, **DESIGN synchronicity**.

This highly collaborative environment has allowed our team to apply real-time, parallel expertise to simultaneously

address project opportunities and challenges.

Later this month, Strang will strengthen our Design Synchronicity protocol with a second office, serving Eastern Wisconsin and Northern Illinois.

This will be a full-service office with architects, engineers and interior designers serving

regional clients. In short, we will be capable of delivering the same high quality solutions in that region as in Madison. In

Milwaukee Regional Office

W238 N1610 Busse Road
Waukesha, WI 53188
262.875.6760

Madison Regional Office

6411 Mineral Point Road
Madison, WI 53705
608.276.9200

fact, staff from the two offices will communicate regularly on a wide variety of projects.

Thanks to advancements in digital, wireless and BlueStart technologies, our staff will be empowered to actually intensify interdisciplinary alliances and client connections at the same time.

Our new office will mirror technologies in Madison including high-definition teleconferencing, energy modeling and virtual reality software.

And having a presence in the market will certainly contribute to more personal interactions. We will be able to apply both a “High Tech and High Touch” encounter to enhance our client experience.



Every hand makes Dane County stronger

At Habitat for Humanity of Dane County, we don't offer handouts, we offer a hand up. Through our volunteer network, generous donors and sales from our two Habitat ReStores, we're helping families achieve strength, stability and self-reliance to build a better life through shelter.

Join us at habitatdane.org.





CHUCK
BERNHAGEN
BLENDED
BOTH OF HIS
PASSIONS



FOOTBALL and ARCHITECTURE



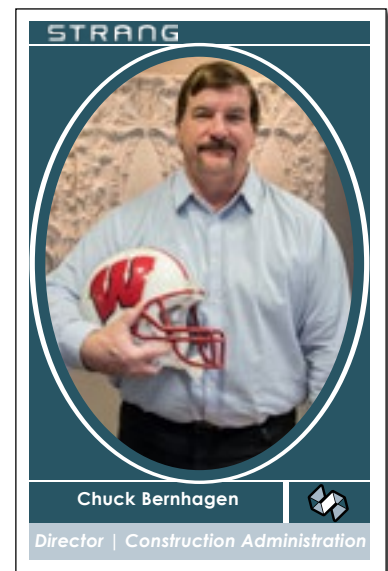


Few of us ever have the chance to see some of our own work viewed on the world stage. But Strang's Chuck Bernhagen had that opportunity when the US Bank Stadium in Minneapolis hosted Super Bowl LII.

As a senior project executive for the Hammes Company, Chuck oversaw the stadium's systems – from lighting and IT to broadcasting capabilities – when it was being developed. So he's understandably proud of the fact that he played a part in completing one of the largest sports stadiums in the world.

It was especially gratifying for Chuck because it combined two major aspects of his life – architecture and football.

Chuck grew up in Madison, played linebacker for the Wisconsin Badgers in the late 1970s and spent two years in the NFL. But he discovered his true calling when he returned to Wisconsin and took a position with a local engineering firm.



CAREER STATISTICS

- Madison East High School
- Wisconsin Badgers 1976-1980
- B.S. Civil Engineering, UW-Madison
- Master of Project Management, Penn State University
- Atlanta Falcons 1981, 1982

“

IT WAS THE BEST
JOB I EVER HAD.
THE PACKERS
WERE A STEP
AHEAD OF
EVERYONE ELSE.
IT WAS LIKE A BIG
FAMILY THERE.”



Chuck worked on the South End Zone Improvements, the Packers Hall of Fame, the Pro Shop, Curly's Restaurant and administrative offices while in Green Bay.

He made a name for himself in the industry working as a program manager on the healthcare side, leading projects for health systems, hospitals and physician's services. Eventually, he had the opportunity to switch to the sports development side of the business. Then his football life and career really started to merge.

Chuck went to Green Bay to lead a team on various Lambeau Field improvements. He was stationed in an office across the hall from Packers President Mark Murphy on the fourth floor at Lambeau Field and got to know many of the administrators, coaches and players.

Today, Chuck continues to expand his expertise, working on projects at Strang like the Confluence Arts Center in Eau Claire and the new Hamel Music Center on the UW-Madison campus. Sometimes on Friday afternoons, you can find Chuck at his desk, wearing his familiar number 55 Badgers jersey. No surprise there. Football will always be part of him.

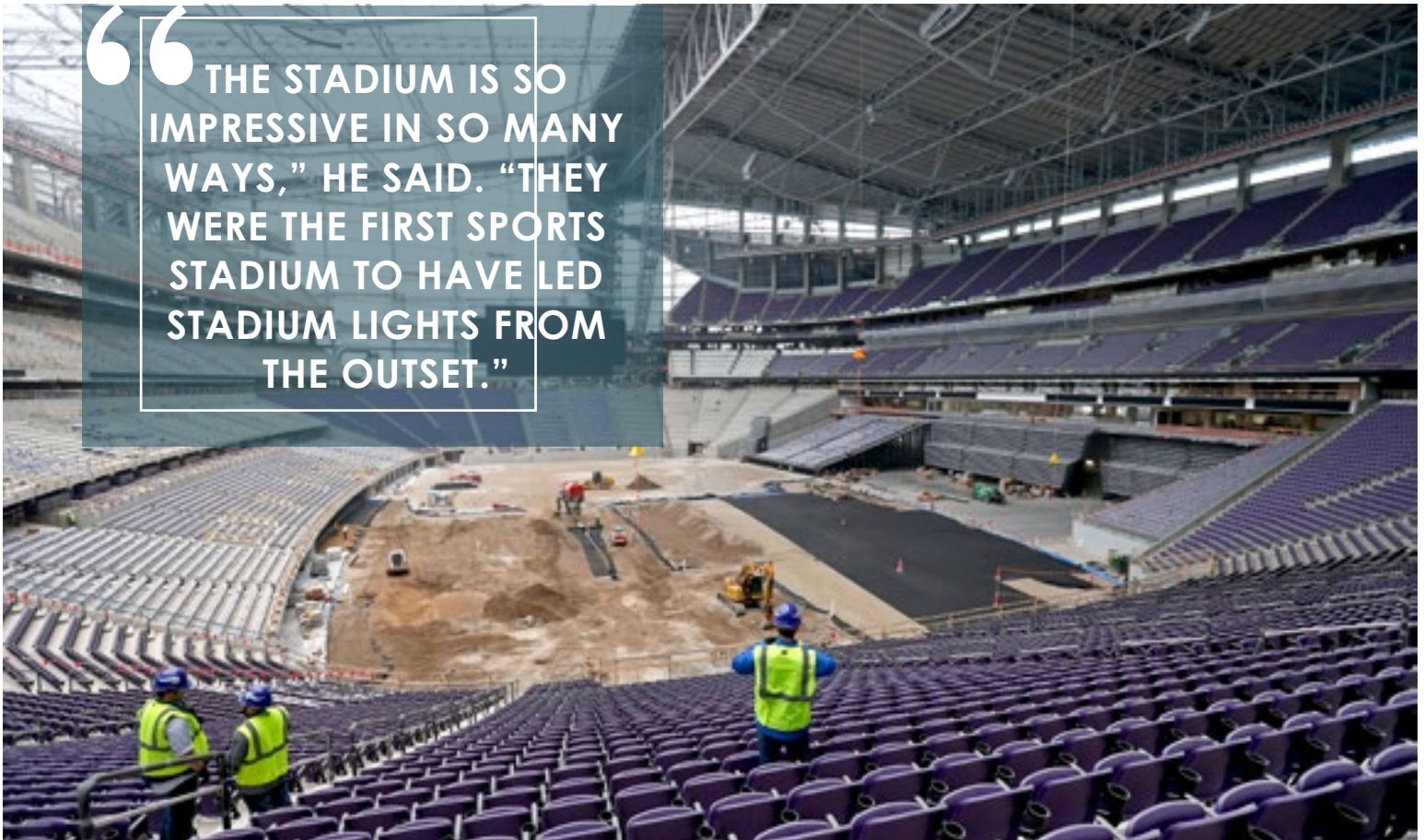


Designer: HKS, Inc.
Contractor: Mortenson Construction Company.

The US Bank Stadium features the largest transparent ethylene-tetrafluoroethylene (ETFE) roof in the nation and five 95-foot-high pivoting glass doors.



“THE STADIUM IS SO IMPRESSIVE IN SO MANY WAYS,” HE SAID. “THEY WERE THE FIRST SPORTS STADIUM TO HAVE LED STADIUM LIGHTS FROM THE OUTSET.”



NOTEBOOK

> Interior Designer Reaches Milestone

Strang Senior Interior Designer Connie Nankee received her NCIDQ certification – the highest qualification in the industry. It was earned through a combination of credit hours, work hours and a series of tests. The achievement makes her eligible to be a Wisconsin Registered Interior Designer. Congratulations Connie!



> Tim Crum Earns Architecture Certification

Strang Senior Project Manager Tim Crum has been certified by the State of Wisconsin as an Architect. Tim received his Bachelor's Degree in Architectural Studies at the University of Illinois and a Master's Degree in Architecture from the University of Wisconsin – Milwaukee. He received his certification after passing a series of tests and accumulating the required number of hours working in the profession. Please join us in congratulating Tim!



NOTEBOOK

> Engineer Reaches PE Status

Russ Knudson, Director of Energy Performance Engineering, received his PE (Professional Engineer) license in January. The designation is conferred by the National Council of Examiners for Engineering and Surveying (NCEES). It indicates the engineer met a series of stringent requirements, passed required exams and worked under the supervision of a PE for at least four years. Join us in congratulating Russ.



The MADIsCene

Blog And Podcast Promotes Madison

Madison can be a great place to live.

Unfortunately, the city doesn't always appear that way. Sub-zero temperatures, blowing snow or Beltline traffic can give the wrong impression to newcomers. That's why Neil Mathweg, a



Madison realtor, decided to start a blog and a podcast called "I Love Madison." The niche audience is the people who move to town and need to get connected to people and programs here. The blog is written by more than a dozen contributors. Neil co-hosts the podcast. Both the blog and podcast provide information on events, ways to connect, places to eat and needs in the community. To find out more, visit the site at www.iloveMadisonShow.com.



InBusiness Magazine readers
named Strang the top commercial
architectural firm in Madison
for the fifth consecutive year.

From Best Practices To Next Practices
www.strang-inc.com

Written, designed and produced by Strang's Creative Collaboratory
Questions or comments, please contact Randy Banks at RBanks@strang-inc.com

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