THE RESOURCE FOR THE CEILINGS & INTERIOR SYSTEMS CONSTRUCTION INDUSTRY



Ceilings & Interior Systems Construction Association

CONSTRUCTION



1 and a

INSIDE

CISCA's 2020 Construction Excellence Award Winners

COVID-19 and Constructio

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Pictured: Pictured: SoftGrid® Switch at Barclays, Houston, Texas, a collaboration with HOK, installed by Waltech

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Acoustical Interior Construc **APRIL-JUNE 2020**







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COLUMNS

6 President's Message: Kelly Johnson

FEATURES

- 8 CISCA's 2020 Construction **Excellence** Awards
- 28 Collaboration: In Tents: Teamwork, **Openness and Communication Were** Critical to the Success of 9Wood's Temple Beth Am Project
- 32 Practical Suggestions for Implementing Reductions in Force to Minimize Legal Risks
- **34** One Healthy Environment: T-P Acoustics Inc. Scores High Marks on University of Arizona Health Sciences Building
- **38** COVID-19 and the Construction Industry
- **40** Construction Contractors Must Plan Now to Meet Updated Revenue Recognition Rules
- **42** Dealing with Data in the Construction Industry
- **45** How to Create an OSHA-Compliant Safety Program

IN EVERY ISSUE

46 Index to Advertisers

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APRIL-JUNE 2020 CISCA ACOUSTICAL INTERIOR CONSTRUCTION

2019-2020 CISCA BOARD OF DIRECTORS

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PRESIDENT'S MESSAGE

I am proud to say that without question, the board's decision to safeguard the physical wellbeing of our membership was unanimously the main objective over any fiscal ramifications we knew would exist.



BY KELLY JOHNSON, SPECIFIED., 2019-2020 PRESIDENT

pring is upon us and the typical message from your CISCA president would be chalked full of fun and insightful information about the CISCA convention that would have just ended. That's not at all where we find ourselves this year. With the last 30 days creating an unprecedented set of events, this is truly a very unique and historical time for each of us and our industry. Rather than focusing on and reiterating the negative attributes of the global pandemic that has inundated us recently, I would like to break away and share with you what I have witnessed within our organization during these very trying and stressful times.

The decision to cancel our convention was made with the utmost sincere concern for the safety and welfare of our membership. With consistently changing information pouring in by the minute, the care and compassion exhibited by each board member when discussing their opinions was heartwarming. These open discussions allowed us to review and better understand each concern during this unprecedented circumstance. As CISCA board members, we have multiple responsibilities involving both the physical as well as the financial wellbeing of our association, and I am proud to say that without question, the board's decision to safeguard the physical wellbeing of our membership was unanimously the main objective over any fiscal ramifications we knew would exist. Witnessing and being a part of the compassionate actions taken by this board, I am very honored and humbled to serve with these individuals.

Looking back over this past year, our board and volunteers have worked diligently to ensure CISCA will have systems and tools in place for the future. Some of the accomplishments are:

- We started our year off at the Fall Conference and utilized a full week to combine the executive and regular board meetings at the same location. This format was very efficient and productive.
- We enacted three-year board terms.
- We voted on and enacted Boardable as a platform for storing our CISCA information as well as a tool to communicate with our board and volunteers.
- Coinciding with the Strategic Plan goals for this year, we accomplished and published Operating Procedures for the organization consisting of 28 different sections. This SOP is structured to give a blueprint of our organization, the roles and committee functions, and assist any new or existing board member or volunteer by providing a consistent outline explaining the purpose, key objectives, procedures and background for all committees in one concise document.
- Committee structures were also under review and some were dramatically changed or added.
 - 1. We created a new Finance Committee which purpose is to benefit the overall financial health and stewardship of the association.
 - 2. We created a Talent Acquisition Committee to identify, recruit and engage people who should be more involved in CISCA. The emphasis is to have these individuals through their

experience and involvement become board members. This will allow the board to have a much clearer insight for potential candidates when filling outgoing/open positions.

- The Communications Committee was revamped and is now comprised of individuals with marketing/promotion skills from each age group of membership ranging from 20s to 50s. This group has already been instrumental on updating our website and is enhancing our use of and presence on social media.
- 4. The Membership Committee is being driven by two individuals working together as co-chairs to enhance our understanding and ability to bring in new members from the various market sectors.
- The Events Committee knocked it out of the park in planning what would have been a spectacular Las Vegas

CISCA STATEMENT

Convention. Based on a Black and Gold theme along with a Hollywood formal flare, the Awards Dinner was going to be the event of the year! The good news is this group has already started their preparation and carry over for a great event and blowout in New Orleans.

- 6. The Technical Committee completed and published the 2019 CISCA Handbook (19th Printing/August 2019) which is available at CISCA.org. This committee is also updating and finalizing the Wood Ceilings Publication (available before June 30) and starting an update on the Access Floors publication.
- 7. The Emerging Leaders have continued to grow and are engrained into the organization through their participation in various committees. The first graduating class completing their four-year term will be this coming year, and we are looking

forward to welcoming this group as they weave their presence into official positions and share their energy, ideas and passion toward an exciting new era for CISCA.

Let's all diligently vow to keep the energy positive and continue our journey moving forward by communicating with our network of CISCA friends and fellow industry partners while we work thru these challenging times.

Writing my last article as your CISCA president, I find there are so many individuals to thank for volunteering their time and talents to our organization. Everyone has been amazing to work with, and I applaud all that you do. With respect, thank you for the opportunity, and I appreciate each of you.

I will conclude with a special thank you to my family for your patience, support, understanding and love during this past year.

Now — over to you, Scott.



CORE PURPOSE

CISCA exists to provide the acoustical ceiling and wall systems industry with 24/7/365 expertise via diverse and state-of-the-art communication channels, interactive opportunities and regional and national events.

VISION

CISCA is the global premier authority for the interior construction and acoustical ceilings industry. CISCA fosters and enables professional development and exchanges for and between association members and industry professionals.

MISSION

Identify and address trends, diversity and growth of the industry and its members. Communicate CISCA's vision to all members while fostering excitement and enthusiasm for a transformative, modern association experience. Offer a variety of collaboration and networking opportunities that will attract all CISCA audiences. Create a structure within CISCA built on easy communication, visibility and accountability that allows volunteers and members to easily connect with the value of the association. Achieve standards of administration that are commensurate with the association's vision and focus on ensuring a positive experience for its volunteers.

Create modern two-way communication between CISCA audiences and the expertise of CISCA's members. Communication should be focused on education, current trends and the member knowledge base. Determine the next steps that allow CISCA to remain the authority in specialty interiors and acoustical ceilings using a modern mode of communication.



Turn down the noise and turn up Profitability.

A noisy work environment can take a toll on your business's profitability and decrease employee productivity. The new CISCA ROI Calculator tool evaluates just how much acoustical improvements can help optimize your bottom line. Visit cisca.org/ROIcal to learn more.



WINNERS

CONTRACTOR > EDUCATION > LARGER THAN 50,000 SQUARE FEET > EAST OF THE MISSISSIPPI

VI

CISCA'S 2020

CONSTRUCTION EXCELLENCE

USF Morsani College of Medicine & Health, Tampa, Florida

HANLON ACOUSTICAL CEILINGS

Other companies that worked on the project: Skanska, General Contractor

As part of the University of South Florida's medical school, the USF Morsani building will support health, economic, and educational improvement in the entire surrounding community. This new medical facility was part of a \$3 billion downtown development that included a 395,000 square foot, 13-story high-rise tower with a 400-seat auditorium, teaching and research labs, and classrooms. This project brought challenges from space restraints due to the amount of trades working at once to the complications that come with constructing a high-rise building in the middle of a bustling city's most highly transited downtown area. Despite the unique difficulties, the Hanlon Acoustical Ceilings team persevered and excelled in their most demanding yet rewarding project to date.



CISCA ACOUSTICAL INTERIOR CONSTRUCTION | APRIL-JUNE 2020

CONTRACTOR > EDUCATION > LARGER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

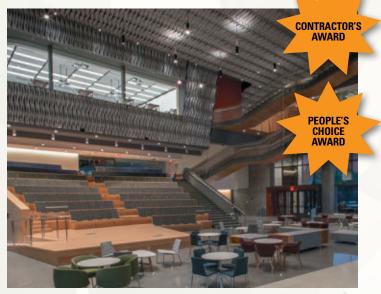
University of Arizona — Health Sciences Innovation Building, Tempe, Arizona

T-P ACOUSTICS, INC.

Other companies that worked on the project:

Arktura, Manufacturer Kitchell Contractors Inc. of Arizona, General Contractor CO Architects, Architect

Phoenix-based acoustical ceiling contractor, TP Acoustics and LA-based manufacturer, Arktura, brought to reality a new vision for medical training at University of Arizona's Health Sciences Innovation Building in Tucson, Arizona. Completed by Kitchell Contractors in 2019, with design by CO Architects, the nine-floor 220,000 SF facility provides a world-class environment for health professionals, students and faculty to work, learn, and collaborate. TP Acoustics and Arktura collaborated to deploy a number of Soft Sound[®] acoustic solutions across walls and ceilings,



enhancing the complex's aesthetics while giving it the noise control necessary to make it a functional collaborative environment. Nowhere is this more apparent than in the building's signature atrium, which overcame a number of complex conditions and made innovative use of Arktura's SoftFold[®] acoustic baffle system. The result is a forward-thinking space that organically incorporates acoustics and creates a collaborative space capable of attracting the best minds in health.

CONTRACTOR > EDUCATION > SMALLER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

Northern Arizona University's Kitt Recital Hall, Flagstaff, Arizona

T-P ACOUSTICS, INC.

Other companies that worked on the project: Madrid Inc., Manufacturer RSP Architects, Architect

Northern Arizona University's Kitt Recital Hall was designed as a 26,863 square-foot, state-of-the-art performing/fine arts complex to attract students, local audiences and guest performances. Working closely together, T-P Acoustics, Inc. of Phoenix, AZ, along with RSP Architects and Madrid Inc. helped to construct what is considered to be the cultural center of the University. Madrid's multiple wood products met the acoustical performance demands required by the acoustician. These included 30 wood reflectors, linear wood planks, wood grille, 48" x 144" wood wall panels



and custom wood shelf. These were designed to provide an aesthetically pleasing environment for the patrons, but to also meet the acoustical performances expected of this type of facility. With the combined expertise involved to complete this space, Kitt Recital Hall is certain to enhance the musical curriculum that will allow NAU to meet the required needs of its current and future students.

CONTRACTOR > HEALTHCARE > LARGER THAN 50,000 SQUARE FEET > EAST OF THE MISSISSIPPI

Simpson Querrey Biomedical Research Center, Chicago, Illinois

E&K OF CHICAGO

Other companies that worked on the project: Mau, Inc, Independent Manufacturers Representative Armstrong Ceiling Solutions, Manufacturer Perkins + Will, Architect

The Northwestern Simpson Querrey Biomedical Research Center is a new



350,000 square foot healthcare project. This will be the new home for medical research breakthroughs in areas such as pediatrics, cancer, heart disease, neurodegenerative disorders and genetics. One of the main goals and focus points was to minimize the sound throughout the facility with a wood featured product. The serpentine wood ceilings were installed in the 160-seat Simpson-Querrey Auditorium. The torsion wood ceiling was installed throughout the lobby, conference room and corridors. This design featured ACGI, Mau, Inc and Armstrong. The project was designed by Perkins & Will.

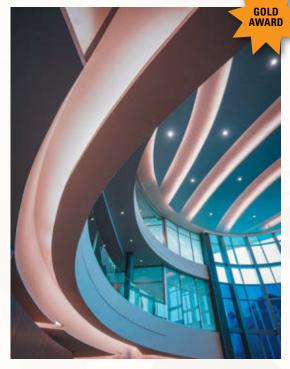
CONTRACTOR > HEALTHCARE > LARGER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

Davis Global Center, Omaha, Nebraska

E&K OF OMAHA

Other companies that worked on the project: Fellert, Manufacturer Armstrong Ceiling Solutions – ACGI, Manufacturer

The University of Nebraska Medical Center has reached a new level of form meets function. Located in Omaha, NE, The Dr. Edwin & Dorothy Balbach Davis Global Center is a simulation-learning facility that utilizes hands-on engagement to enhance skills competencies. One might think that the 192,000 SF building would have a cold or clinical feel — quite the contrary. The design team incorporated elements from manufacturers such as Armstrong and ACGI to create a warm and inviting architectural space. At the core of the buildings design is the three-story atrium that serves as the information hub and main lobby. To address the acoustic challenges of such a large and open space, Fellert acoustical plaster was introduced into the atrium ceiling and surrounding corridor ceilings design. E&K of Omaha's expertise in specialty acoustic finishes provided the skilled craftsmanship that brought the atrium clouds and flowing ceiling to life.



CONTRACTOR > OFFICE > LARGER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

American Express at Desert Ridge, Phoenix, Arizona

E&K OF PHOENIX, INC.

Other companies that worked on the project: Armstrong Ceiling Solutions, Manufacturer Rockfon, Manufacturer Kirei, Manufacturer RSP, Architect

American Express at Desert Ridge featured a variety of complex designs by RSP Architects that required intricate detailing to ensure proper integration with the surrounding building space. Over 217,000 SF of Rockfon ACT was installed along with 2,300 LF of Soundply sound baffles, 17,500 SF of Kirei felt wall panels and 9,000 SF of Armstrong metal ceilings. The most challenging aspects of this



project were the 26,000 SF of Armstrong Tectum panels that were installed 65' above the ground and the 24,000 LF of fabric wrapped wall panels that were installed up to 50' above the ground. There is no question that the location of this ceiling is the focal point of the entire project. The execution of these intricate ceiling systems, and the obstacles overcome were accomplishments all parties involved should be proud of. The design elements of coordinating so many different products together created a space that will never be duplicated again.

CONTRACTOR > OFFICE > SMALLER THAN 50,000 SQUARE FEET > EAST OF THE MISSISSIPPI

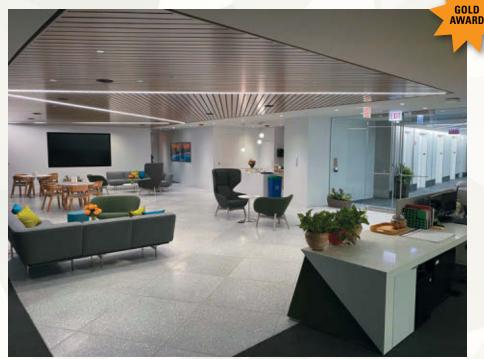
Freddie Mac, Chicago, Illinois

E&K OF CHICAGO

Other companies that worked on the project:

Armstrong Ceiling Solutions, Manufacturer Focal Point, Manufacturer Gensler, Architect

The Freddie Mac project relocated its space in the heart of Chicago. Passing through the reception you notice an elegant multi-directional liner ceiling that optimizes this area for sound and design. The open office is filled with an abundance of continuous baffles that are integrated with LED lighting. E&K of Chicago is proud to have participated in this project that was designed by Gensler.



CONTRACTOR > OFFICE > SMALLER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

Aimco Corporate Offices, Denver, Colorado

HEARTLAND ACOUSTICS & INTERIORS

Other companies that worked on the project: Western Interior Supply, Distributor Rulon International, Manufacturer Rockfon, Manufacturer Golterman and Sabo, Manufacturer NovaWall, Manufacturer Armstrong Ceilings, Manufacturer USG Ceilings Plus, Manufacturer Gordon Inc, Manufacturer The Weitz Company, General Contractor Tryba Architects, Architect



Heartland Acoustics & Interiors took part in the tenant finish project consisting of a two-story 44,000 square foot space on the 16th and 17th floors of an occupied building in downtown Denver. The architect was Tryba Architects and the general contractor was The Weitz Company. The most complex portion of the project was installing the custom wood ceiling system and the integration with the acoustical ceilings. The wood ceilings had to be continuous from the outside the offices to the inside of the offices where it then transitioned into the acoustical ceiling. A custom transition metal trim was created specifically for this project further complicating the install and the schedule. Another key design feature of the project was the open office areas that wrap around the floors. The exposed concrete structure coupled with the continuous private office windows and exterior windows required a creative approach to controlling the acoustics.

CONTRACTOR > RETAIL > SMALLER THAN 50,000 SQUARE FEET > EAST OF THE MISSISSIPPI

Apple Carnegie Library, Washington, D.C.

C. J. COAKLEY CO., INC.

Other companies that worked on the project: L&W/Building Specialties, Distributor Fellert, Manufacturer USG, Manufacturer

A monumental landmark building built in 1903, the Carnegie Library in Washington DC needed to be transformed to become an Apple Flagship store. A building built during the depression era had to transition to accommodate the infrastructure and vision of Apple for the Nation's Capitol. C. J. Coakley Co., Inc. provided acoustical plaster, acoustical panel ceilings, Venetian plasters, specialty plasters, ornamental



plasters, ornamental restoration, drywall and insulation scopes. We worked with Fellert to resolve acoustics and provide a complex ceiling in an existing space. We provided new work and concurrently improved on the existing work of the past by restoring existing plaster and ornament. The finished space is both unique and inspiring.

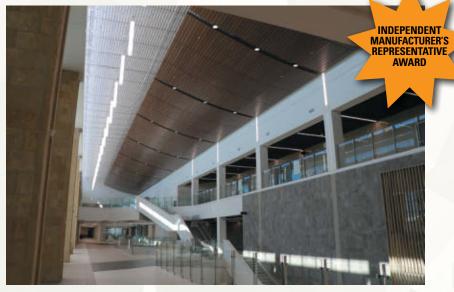
INDEPENDENT REP > EDUCATION > SMALLER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

C.E. King High School, Sheldon ISD, Houston, Texas

SPECIFIED.

Houston, Texas Other companies that worked on the project: Applied Finish Systems Inc, Installing Contractor Hunter Douglas Ceiling and Wall Products, exclusively from Certainteed, Manufacturer Conwed, Manufacturer USG Building Systems, Manufacturer Huckabee Architects, Architect

The new C.E. King High School is a collegiateinspired state-of-the-art campus located in Houston, Texas. This school was designed by



Huckabee Architects, Houston, Texas and is a beacon for Sheldon ISD. With over 20,600 square feet of ACGI Wood Ceilings and Wall materials in the project, this school is a replacement for the original C.E. King High School that was damaged beyond repair during Hurricane Harvey. The Independent Manufacturer Rep firm of Specified. worked with Huckabee Architects on the front end of the project and Applied Finish Systems, Inc. in Houston, Texas, was the installing acoustical subcontractor.

INDEPENDENT REP > OFFICE > SMALLER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

Mercedes Benz Financial Services Center, Fort Worth, Texas

SPECIFIED.

Other companies that worked on the project: Hunter Douglas Architectural, Manufacturer Pacific Builders, General Contractor SmithGroup JJR, Architect BOKA Powell, Architect

The new Mercedes Benz Financial Services Center, Fort Worth, Tx., is not considered just a business center, but a hub in the Fort Worth community. The state-of-the-art facility utilizes facial recognition software for ease of employee access to the office, gym, basketball courts and cafe inside. The project was designed by SmithGroup JJR, Dallas, Tx., in conjunction with the architect of record, BOKA Powell. Pacific



Builders was the general contractor. Hunter Douglas, Norcross, Ga., provided over two miles of custom beams and nearly 23,000 SF of combined custom metal and wood ceilings.

MANUFACTURER > BOUTIQUE

Temple Beth Am, Los Angeles, California

9W00D

Other companies that worked on the project:

Lanton Associates, Independent Manufacturers Representative The Finish Line, Independent Manufacturers Representative Herman Coliver Locus, Architect Del Amo, General Contractor Coustic-Glo, Installing Contractor

The sanctuary and foyer renovation of Temple Beth Am, Los Angeles, Calif., features a circular wood grille ceiling that spirals upwards 25 ft. to a dome skylight covered with fabric. "The curved walls, ceiling and seats of the Sanctuary are meant to hug and hold the congregation," says the architect. Herman Coliver Locus Architecture, San Francisco, Calif., was the executive architect responsible for the ceiling design. Del Amo Construction, Torrance, Calif., was the general contractor. 9Wood, Springfield, Ore., provided 3,305 SF of wood cross-piece grille ceilings.



MANUFACTURER > BOUTIQUE

Custom Feature Ceiling — Pixel Swarm, Seattle, Washington

ARKTURA

Other companies that worked on the project: Graphite Design, Architect

Arktura, in collaboration with Graphite Design, employed innovative, thoughtful approaches to design, manufacturing, and installation to make this unique custom ceiling system in the heart of downtown Seattle, Washington, a reality. The feature ceiling serves as the key welcoming attraction to a massive new two-building high-tech company campus finalized in 2019. Extending approximately 8,600 square feet of interior and exterior areas, this custom ceiling takes its cues from nature, with



a design directly inspired by the swarming flight patterns of birds. These murmurations were translated into nearly 3,500 "Pixels," elegant powder-coated aluminum sub-panels that use only bent angles and underlying color gradations to evoke a dynamic feeling of movement through a static system. Pixels modularly connect to larger torsion panels, some hoisted several stories high. The end result is a unique experience that reinterprets Pacific Northwestern fondness of nature through an innovative, tech-inspired lens.

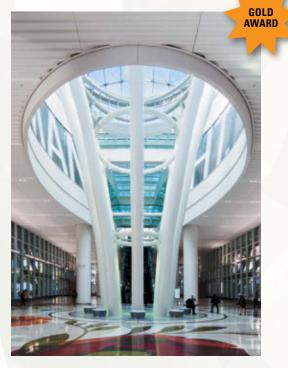
MANUFACTURER > CIVIC > LARGER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

Salesforce Transit Center, San Francisco, California

GORDON, INC.

Other companies that worked on the project: Southwest Specialty Contractors, Installing Contractor The Finish Line, Independent Manufacturers Representative Pelli Clarke Pelli Architects, Architect Adamson Associates, Architect

The Salesforce Transit Center in San Francisco, CA is a 1.2 million square foot, \$2.3-billion mass transit center with five levels of operation, one of which is designated for future development. The levels feature train station platforms, concourses, bus plazas, taxi and passenger pick-up areas, retail services, administrative offices, as well as a 5.4 acre roof top park complete with gardens and an amphitheater. Total construction time for the project exceeded 10 years. Salesforce Transit Center has been described to other multimodal transportation projects of grandeur as the "Grand Central Station of the West." A key feature of the project was the 325,000 square foot of Gordon Incorporated's WinLok ceiling and soffit system spanning three levels. Secure accessibility of panels was a paramount design objective. To achieve Pelli Clarke Pelli Architects and Adamson Associates architectural design intent, Gordon, Inc., created the now patented WinLok system specifically for the project.



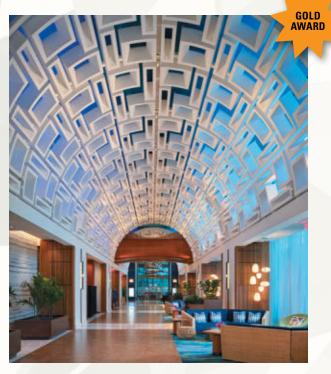
MANUFACTURER > CIVIC > SMALLER THAN 50,000 SQUARE FEET > EAST OF THE MISSISSIPPI

Seminole Hard Rock Hotel & Casino, Hollywood, Florida

DECOUSTICS

Other companies that worked on the project: KHS&S Contractors, Contractor

To bring back the once-faded "Vegas" flare for one of its key properties in Hollywood, FL, Seminole Hard Rock Hotel & Casino decided to go big, really big. After 12 years of work and \$1.5 billion invested, the newly opened 450-foot hotel tower in the shape of a guitar has become a prominent landmark and attraction. Featured inside the main lobby and hallway area is a surreal 3-Dimensional geometrical ceiling constructed from voluminous square and rectangular shapes that are seemingly floating in the air. Pushing the boundaries of engineering and raw material to realize this complex design intent, Decoustics handcrafted 448 oversized 3D shapes from tapered Claro® acoustical panels of different thicknesses and using special hollow core construction. Concealed custom steel frame was used to suspend all Claro® panels and hold the geometry of the curved ceiling shape while delivering the desired floating effect.



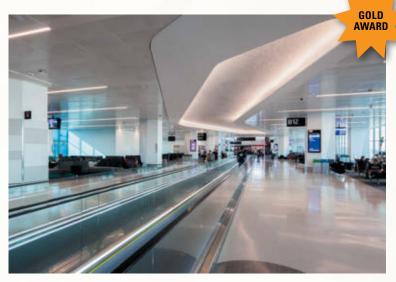
MANUFACTURER > CIVIC > SMALLER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

San Francisco International Airport, Harvey Milk Terminal 1, San Francisco, California

GORDON, INC.

Other companies that worked on the project: The Finish Line, Independent Manufacturers Representative Woods Bagot, Architect HKS, Architect ED2 International Architects + Planners, Architect KYA, Architect

Gordon Incorporated provided 119 uniquely shaped, custom column covers for Phase 1 of the \$2.4- billion San Francisco International Airport Harvey Milk Terminal 1. Of the 119 columns, there were a total of 35 distinct configurations. Each of the columns were made of multiple



materials including galvanized steel upper skins with factory applied powder coat in both matte and satin gloss finishes. The lower bases were constructed with stainless steel. Upper column skin materials were both perforated and non-perforated and customized to meet architectural design objectives. The perforations feature a gradient pattern that transitioned from a higher percentage of open area on the lower skins and a gradual transition in the form of a reduction in open area progressing to the top of the column. The gradient perforation pattern went through several iterations during the design process to achieve a "randomized" pattern void of a paredolia effect or mirroring.

MANUFACTURER > CIVIC > SMALLER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

Virgin Galactic's Gateway to Space, Truth of Consequences, New Mexico

9W00D

Other companies that worked on the project: Creative Alternative, Independent Manufacturers Representative Viewport Studio, Architect RMKM Architecture, Architect

Virgin Galactic's "Gateway to Space" interior fit-out of Spaceport America's terminal-hanger in Truth or Consequences, N.M., makes the world's first private spaceport operational-ready. Virgin Galactic, which leases the spaceport from the New Mexico Spaceport Authority, expects space flights to begin soon. Flintco, LLC, Tulsa, Oklahoma, was the fit-out



general contractor. Architect of record, RMKM Architecture, Albuquerque, N.M., and design architect, Viewport Studio, London, UK collaborated on the project. 9Wood, Springfield, Ore., provided 3,620 SF of custom, wood cross-piece grille ceilings and walls and 2,400 LF of custom trims.

MANUFACTURER > EDUCATION > LARGER THAN 50,000 SQUARE FEET > EAST OF THE MISSISSIPPI

Charles Library at Temple University, Philadelphia, Pennsylvania

ARMSTRONG CEILING & WALL SOLUTIONS

Other companies that worked on the project: Mason/Thomas Building Group, Contractor Snohetta, Architect Stantec, Architect

The new Charles Library at Temple University serves as a central point of intersection between students, faculty, staff, and the surrounding community. Three arched entrances lined with linear western red cedar panels continue into the lobby from outside and form a three-story domed atrium featuring a variety of different curves and intersections. The central dome in the atrium features a curved oculus that allows light to filter into the lobby from the uppermost floor. The unique geometry that characterizes each of the domes was achieved by gently bending the wood panels and installing them in a custom curved framing system. In the curved oculus, the panels are straight and the curvature is provided by the backer. The atrium was designed by Snohetta in collaboration with Stantec and installed by Mason/Thomas Building Group using a custom WoodWorks® ACGI Panelized Linear System from Armstrong Ceiling & Wall Solutions.



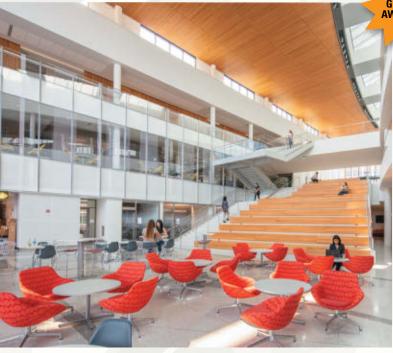
MANUFACTURER > EDUCATION > SMALLER THAN 50,000 SQUARE FEET > EAST OF THE MISSISSIPPI

Edward J. Minskoff Pavilion at Michigan State University, East Lansing, Michigan

9W00D

Other companies that worked on the project: LMN Architects, Architect Fishbeck, Thompson, Carr & Huber, Architect Masalko Wada, Design Architect

The new Edward J. Minskoff Pavilion at Michigan State University, East Lansing, Mich., combines state-of-the-art teaching facilities, intriguing social spaces and a new face to the Eli Broad College of Business. The project was designed by LMN Architects, Seattle, Wash., in conjunction with the architect of record and structure engineer, Fishbeck, Thompson, Carr & Huber, Grand Rapids, Mich. Clark Construction, Lansing, Mich., was the design builder. 9Wood, Springfield, Ore., provided nearly 21,000 sq. ft. of custom engineered wood walls and ceilings.



GOLD AWARD

MANUFACTURER > EDUCATION > SMALLER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

University of Oregon Tykeson Hall, Eugene, Oregon

9W00D

Other companies that worked on the project: Fortis Construction, General Contractor Rowell Brokaw, Architect Office 52, Architect

Tykeson Hall at the University of Oregon, Eugene, Ore., is home to the university's College of Arts and Sciences and the Dean's Office, the University Career Center, Academic and Career Advising, Office of the Vice President for Equity and Inclusion and more. Fortis Construction, Portland, was the construction manager/general contractor. Executive architect, Rowell Brokaw Architects, Eugene, Ore., and Office 52, Portland, Ore., collaborated on the design. 9Wood, Springfield, Ore., provided 15,017 SF of panelized linear wood ceilings.



MANUFACTURER > OFFICE > LARGER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

McDermott Offices, Houston, Texas

USG CEILINGS PLUS

Other companies that worked on the project: Baker Triangle, Contractor

Achieving a custom ceiling with a multi-finish, double layer system including integrated lighting and sound-absorbing acoustics required a high level of collaboration between all members of the design, manufacturing and installation teams. A highly automated approach to engineering and manufacturing of the final product ensured that standardization did not compromise design intent — and that design intent did not impede quality of the final product or meeting construction schedule. It is uniquely innovative in design, manufacturing, and installation processes.

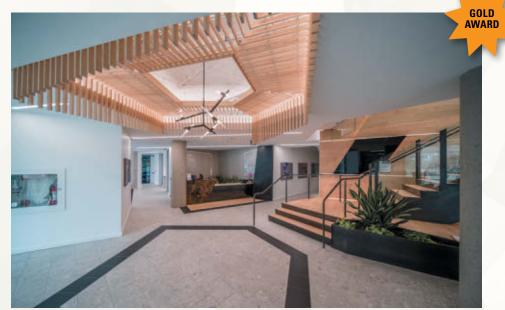


MANUFACTURER > OFFICE > SMALLER THAN 50,000 SQUARE FEET > EAST OF THE MISSISSIPPI

Trend Micro, Kanata, Ontario, Canada

RULON INTERNATIONAL

Affirming the belief that a clean, welcoming, eco-friendly environment promotes workplace cohesion and teamwork, this cybersecurity firm gave its primary office a fresh look to coincide with their current efforts to expand and open new offices worldwide. Rulon International's Panel Grille system used on this project adapted to each scenario in which it is used to maintain consistency, but also allowed for a creative license to change both the visual aspects of each panel and the overall layout of each section in the office. As the center-



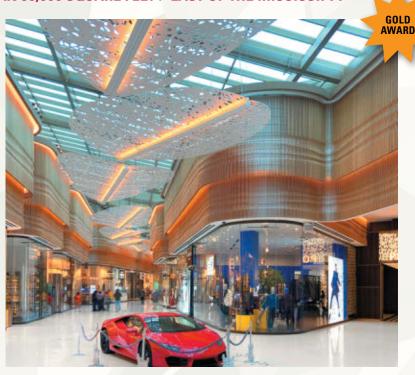
piece of the entry space a combination of individually-suspended wood blades and panelized wood grilles were used to create the chandelier-like aperture that provides most of the ambient light for the lobby. In the workspace, wall panels were designed to incorporate full-cover, white-painted MDF backing panels to eliminate the need for dowels and create the illusion that each individual wood blade was floating.

MANUFACTURER > RETAIL > SMALLER THAN 50,000 SQUARE FEET > EAST OF THE MISSISSIPPI

Seminole Hard Rock Hotel Hollywood, Hollywood, Florida

RULON INTERNATIONAL

Seminole Hard Rock's new, nearly \$1.5 billion expansion is anything but ordinary; adding 200 table games and over 3,000 slot machines, the public spaces are a playground for anyone looking to spend — or win — money. True to the theme of the hotel and casino the elegant yet refined shopping corridor incorporates cloud-like ambient lighting and Rulon International's curved, multi-tier panel grilles evoking the imagery of organic sound waves. To achieve this look, the face of each vertical blade was machined to a specific profile that, when placed next to consecutive modules, creates the meandering, continuous lines that run throughout the space. The upwards of 15,000 square feet of wooden grilles, consisting of 40 unique modules (including 20 left-hand and 20 right-hand modules for opposing walls) were redesigned with the assistance of the manufacturer to simplify both the layout and the installation process.



RUNNERS-UP

CONTRACTOR > OFFICE > SMALLER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

Greenberg Traurig, Denver, Colorado

E&K OF DENVER

Other companies that worked on the project: Turner, General Contractor Gensler, Architect

Greenberg Traurig is a law firm that recently opened a 2 story office in Denver, CO. The project was run by Turner Construction and designed by Gensler. It faced time frame challenges and a short duration schedule which made installation difficult. The end result yielded a beautiful tongue and groove channeled wood ceiling by Armstrong in the elevator lobby as well as Rockfon acoustical ceiling tile throughout.



CONTRACTOR > OFFICE > SMALLER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

McCownGordon Headquarters, Kansas City, Missouri

E & K OF KANSAS CITY, INC.

Other companies that worked on the project: Rulon International, Manufacturer Helix Architecture, Architect McCownGordon, General Contractor

The new McCownGordon corporate headquarters at 850 Main in downtown Kansas

City, Missouri, underwent an extensive renovation. Project was designed by Helix Architecture and contracted by McCownGordon with extensive support from E&K of Kansas City, and Rulon World Industries.

CONTRACTOR > EDUCATION > SMALLER THAN 50.000 SQUARE FEET > WEST OF THE MISSISSIPPI

CAST MED High School, San Antonio, Texas

HEARTLAND ACOUSTICS & INTERIORS

Other companies that worked on the project: Action Gypsum Supply, Distributor • Builders Gypsum Supply, Distributor Specified., Independent Manufacturers Representative CertainTeed, Manufacturer • Hilti, Manufacturer Teal Construction, General Contractor • McChesny/Bianco Architecture, Architect



Heartland Acoustics & Interiors took part in the renovation of CAST MED High School in San Antonio, Texas. The Architect was McChesney/ Bianco Architecture of San Antonio and the general contractor was Teal Construction of Garden Ridge, Texas. The old school was demolished back to its exposed concrete structure with the interiors rebuilt to create a modern state-of-the-art learning environment. Specialty ceiling systems were installed throughout featuring acoustical and wood ceiling clouds, as well as 200 multi-colored hexagonal acoustical clouds. These products were installed in the cafeteria and throughout the hallways with various patterns, heights and colors. Heartland also furnished and installed over 13,000 square feet of acoustical ceiling grid and tile. Despite the aggressive summer schedule, we remained diligent at making safety a number one priority and completed the project with zero safety incidents. Heartland Acoustics & Interiors takes great pride having been a large part of this project.

CONTRACTOR > BOUTIQUE

Whitney Architects, Chicago, Illinois

E&K OF CHICAGO

Other companies that worked on the project: Armstrong Ceiling Solutions, Manufacturer

Whitney Architects relocated their office downtown Chicago after spending 35 years in the same location. E&K of Chicago was proud to have participated in the construction process with Clune Construction to help remodel their space.



MANUFACTURER > OFFICE > SMALLER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

Premiere Technology Company, Los Angeles, California

CONWED

Other companies that worked on the project: DPR Construction, Contractor

This premiere tech company wanted a custom-designed ceiling system that could stylistically complement the aesthetic of the room it was in, as well as function as an acoustical

tuning system and a programmable LED lighting system. The end result matched exactly what the architect had in mind: a series of acoustic baffles floating at a 20 degree angle at the top of the room. Each was wrapped in Eurospan stretch fabric to allow sound to pass through and be absorbed, as well as allow light to pass through from the inside out. These baffles all housed a connected programmable LED system that could serve as standard lighting, but also change to match any mood, or complement something displayed on a screen in the room.

MANUFACTURER > OFFICE > SMALLER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

Dupont — 257, Mexico City, Mexico

OWA

At Dupont, the company's focus is to create working spaces that stimulate creativity and ignite collaboration between employees as well as the customer base. With project Dupont-257 both the architectural vision and acoustics were met. The project is both pleasing to the eyes and ears.





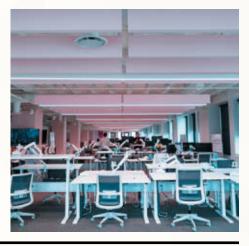
MANUFACTURER > OFFICE > SMALLER THAN 50,000 SQUARE FEET > EAST OF THE MISSISSIPPI

Candid Columbus Headquarters, Columbus, Ohio

CONWED

Other companies that worked on this project: Interior Supply, Distributor

Candid's Columbus office needed an acoustic treatment that could silence ambient noise from the hundreds of phone calls taking place all at once. In addition to something to complement the thoughtful design of the space. Conwed worked with Interior Supply to design a system of custom colored and precariously placed acoustic baffles throughout the entirety of the 3-floored office. The finished project was a system of 399 custom-colored pieces, totaling 2,920 square feet of acoustic surfaces, hung throughout the length of each floor. This created visual cues for work and social spaces as well as making each area of desks feel like their own space, blocking out sound from the surround areas.



MANUFACTURER > EDUCATION > SMALLER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

Minnehaha Academy, Minneapolis, Minnesota

ASI ARCHITECTURAL

In 2017, Minnehaha Academy suffered a catastrophic explosion that claimed the lives of two staff members and destroyed two buildings. In 2018, with eighteen months before students needed new academic facilities for the 2019-2020 school year, they began the journey to rebuild. Integral to the design were Hemlock Grille ceiling panels, providing warmth and hospitality to the space where students, teachers, and administrators are forging new, cooperative relationships. As a nod to the school's natural setting and the lives of two staff members lost, two live trees grow in the main entrance lobby, nourished by a skylight cut into the Grille ceiling.



MANUFACTURER > EDUCATION > SMALLER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

University of Lethbridge Destination Project Science and Academic Building, Lethbridge, Alberta

RULON INTERNATIONAL

Other companies that worked on this project: Wallworks Acoustical Architectural Products, Contractor

Perched on the edge of an expansive, dry, urban valley, this science center promotes interdisciplinary

studies through integrated design and passive energy use — both to provide instructors and students alike a space to contemplate the interconnectivity of science and nature. Designed to provide both form and function, the 10,000 square feet of micro-perforated acoustic wood panels that line the interior four-story atrium were manufactured to provide a high level of sound attenuation without aggrandizing the panel perforations. Rulon Internationals Aluratone acoustic panels are mixed in with flat veneered panels to form walls, vertical pilasters, column wraps, and stair soffit. The main theatre embraces a tall ceiling by incorporating nearly 3,000 square feet of Rulon Internationals two-tier wood Panel Grille system comprised of two different depths of wood blades that follow the curvature of the wall and rise/run of the steps.

MANUFACTURER > EDUCATION > SMALLER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

Torrey Pines High School Performing Arts Center, San Diego, California

RULON INTERNATIONAL

Other companies that worked on this project: Elljay Acoustics, Installing Contractor

After nearly three decades of performances in a black box theatre, the faculty and students of Torrey Pines High School welcomed a brand new performing arts building complete with class-



rooms, lecture halls, a dance studio, a new black box theater, and a 350-seat proscenium theater. The overall layout consists of nearly 2,500 square feet of 4-foot by 8-foot box-frame Curvalon panels weighing in at approximately 225 pounds each and using a special metal bracket system for extra support and stability. Early involvement from the manufacturer, Rulon International, led to the implementation of a templating system whereby the walls supporting the curved wood panels were framed to an exact layout to limit in-field modification. At curtain call, this project was completed on time and now provides a professional-level performance venue for the students and faculty of the school district.

MANUFACTURER > EDUCATION > SMALLER THAN 50,000 SQUARE FEET > EAST OF THE MISSISSIPPI

Morehead State University Student Center, Morehead, Kentucky

ARMSTRONG CEILING & WALL SOLUTIONS

Other companies that worked on this project: Valley Interior Systems, Contractor

Sherman Carter Barnhart, Architects, Architect



The Morehead State University Student Center has been renovated and expanded to include a new light well that infuses the third floor of the three-story building with light and directs it down an open stairwell to the first and second floors below. The light well consists of clerestory windows that extend the length of the third-floor hallway and

curved drywall soffits that bounce the light from the windows onto the floors below. The curved soffits, including a uniquely-shaped curved vault above the entrance to the third-floor stairwell, were created using a drywall grid system from Armstrong Ceiling & Wall Solutions. A glid wall-like finish was applied to the soffits, smoothing out the curves and giving the light well, the soft, gentle effect the architect envisioned. The light well was designed by Sherman Carter Barnhart Architects of Lexington, KY, and installed by Valley Interior Systems, also of Lexington.

MANUFACTURER > EDUCATION > SMALLER THAN 50,000 SQUARE FEET > EAST OF THE MISSISSIPPI

City Year — Pershing Elementary, Chicago, Illinois

TURF DESIGN

Other companies that worked on this project: Pepper Construction Company, General Contractor Gensler, Architect



Turf Design was approached in early 2019 to partner with Gensler to create a dynamic installation for a City Year project in Chicago, IL. City Year is an education non-profit that is driven to help

students and schools in high-need areas. This pro bono collaboration transformed a traditional classroom into a flexible space, allowing the students and staff to engage in a more meaningful way. The Gensler team provided Turf designers with excellent user research. They spoke directly with the staff and students to develop engaging concepts that integrated elements of street art, old-school video games, and even slime. Our designer took the slime concept and ran with it — the result was a hanging baffle system driven by complex, organic surface geometry. The team was able to utilize an innovative, and patented, connection method to ensure that the material was both stable and easy to install.

MANUFACTURER > CIVIC > LARGER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

LAX Midfield Satellite Concourse, Los Angeles, California

ARMSTRONG CEILING SOLUTIONS

Other companies that worked on this project: Martin Integrated Services, Contractor

Los Angeles International Airport is preparing to open a new satellite terminal. Arriving passengers will enter a central hall that features an expansive 40-foot-high undulating ceiling that follows the roof line and imparts the look of nearby ocean



waves. Encompassing approximately 150,000 square feet, the ceiling consists of over 18,000 MetalWorks faceted triangular-shaped torsion spring panels from Armstrong Ceiling Solutions. According to contractor Marty Hovivian of Martin Integrated Services, the terminal ceiling is not the biggest his firm has installed, but the most challenging because of the grid layout. "The undulating design of the ceiling meant the grid went in two different directions which made the installation very complex," he states. "In addition, the 3D visual of the curved ceiling meant nothing was ever in a flat plane. Our crews had never done this type of installation before so it was all new to them, but they learned quickly."

MANUFACTURER > CIVIC > SMALLER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

Amon Carter Museum of American Art, Fort Worth, Texas

DECOUSTICS

Other companies that worked on this project: Integrated Interiors, Contractor



The newly renovated Amon Carter Museum of American Art in Fort Worth, TX has opened its doors to the public with state-of-the-art updates to the historic building. The galleries feature new

interior finishes that greatly improve the experience for the visitors while preserving the vision and legacy of the founder. Driving the renovation were three major design objectives: acoustics, lighting and accessibility to the plenum. The fully-engineered custom solution came from a single source — Decoustics supplied a complete package including translucent acoustical LightFrame® panels, LED lighting and accessible suspension which arrived on site ready for installation. The 3,300 sq ft coffered ceiling is comprised of 135 acoustical LightFrame® panels that look like skylights and 135 acoustical LED panels illuminating them from behind. Working diligently with a lighting consultant, Decoustics has custom-engineered a specific LED module configuration, lumen output and dimming switch to deliver most optimal lighting throughout the day.

MANUFACTURER > CIVIC > SMALLER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

Hokotaka Ti Cultural Center, Shakopee, Minnesota

ARMSTRONG CEILING SOLUTIONS

Other companies that worked on this project: Architectural Sales of MN, Contractor

The recently opened Hokotaka Ti Cultural Center in Shakopee, MN provides visitors with an experience that enhances their knowledge of the Mdewakanton Sioux Indian tribe. Located in the center of the facility is the "Place of Gathering," a 16,000-square-foot circular space with a large 48-foot-high dome. Sixteen pie-shaped sections emanate from the center of the dome. Glue-laminated trusses separate the sections

longitudinally with five structural members installed horizontally within each section between the trusses. The result is essentially eighty individual small ceilings. In addition, a chevron design in the ceiling required that each panel be perfectly placed and aligned correctly with an adjacent panel. To meet the requirements of the dome's design, Armstrong Ceiling Solutions produced 896 custom WoodWorks Grille panels in 56 different sizes ranging from 43"x 30" to 51"x 39". A total of 10,800 square feet were manufactured.



MANUFACTURER > CIVIC > SMALLER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

Two Rivers Convention Center, Grand Junction, Colorado

HUNTER DOUGLAS ARCHITECTURAL

Other companies that worked on this project: Chamberlin Architects, Architect

The Two Rivers Convention Center was in desperate need of an overhaul. Saddled with a small budget and a tight four-week timeline, designers at Chamberlin Architects



devised a dramatic new space to address acoustics along with complaints about aesthetics and functionality. The design team first created a corridor allowing staff to serve visitors without walking through events. Then, they designed and specified a Hunter Douglas ceiling to tie the pre-event space and main event hall together. Available exclusively from CertainTeed, this dramatic wood beam ceiling is the true star of the space. It brings warmth to what was a cold and unwelcoming event hall, and adds flexibility by allowing facility access to ductwork, conduit, fire suppression points, hang points for AV, plumbing and other items. Event planners no longer need to dress up the space with drapery and lighting — as this acoustical ceiling provides a beautiful backdrop.

MANUFACTURER > CIVIC > SMALLER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

Space Needle, Seattle, Washington

FELLERT

Other companies that worked on this project:

Performance Contracting Group, Contractor Olson Kundig Architects, Architect Chamberlin Architects, Architect



The renovation of the Seattle Space Needle entitled, the "Century Project," features over 17,000 square feet of Fellert's Even Better Silk acoustical plaster system installed by Performance Contracting Group for

Hoffman Construction. Designed by Olson Kundig Architects in collaboration with McVey Oakley Design Studio, the new design included 196% more glass for enhanced views of the city, which required a seamless, flexible, sound absorbing system to reduce the interior acoustic reverberation for the millions of tourists a year that visit this historic landmark. The top observation level acoustical plaster ceiling was designed to be a large curving bowl-shape around the tower, while the restaurant level ceiling was installed over the world's first and only glass revolving floor, in three different shades of colors, with three continuous bands of curving ceilings hiding cove lighting and softening the sounds of people talking and taking photos of Seattle and the Puget Sound beyond.

MANUFACTURER > CIVIC > SMALLER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

Lake Forest Civic Center, Lake Forest, Illinois

CONWED

The Lake Forest Civic Center's performance center was in need of a quality acoustical ceiling system that still offered a clean and sharp look that offered more than just a flat surface. Conwed and Foster Architecture Products worked together to create a design using Eurospan that could not only lower the reverberation in the large room, but aesthetically accompany the rest of the fixtures of the space. Individually stretched and smoothed over beams under the fabric, Eurospan fit perfectly into each section running through the hanging lighting equipment to create a subtle yet dynamic look for the ceiling that still served as an acoustical solution.



MANUFACTURER > CIVIC > SMALLER THAN 50,000 SQUARE FEET > WEST OF THE MISSISSIPPI

MSP Airport Food Court Expansion, Minneapolis, Minnesota

ACCENT CEILINGS AND WALLS Other companies that worked on this project: Twin City Acoustics, Contractor ALLIANCE, Architect

Organized Chaos best describes this architectural feature ceiling and wall system.



MANUFACTURER > CIVIC > SMALLER THAN 50,000 SQUARE FEET > EAST OF THE MISSISSIPPI

Mott Branch Library, Toledo, Ohio

RULON INTERNATIONAL

The layout of Mott Branch Library's elaborate ceiling system consists of twenty-one tessellated facets comprised of 115,000 linear feet of material supported by tall, tree-like structural metal posts. Rulon International's Endure engineered polymer system is manufactured with integrated attachment clips and two distinct types of custom metal carriers — depending on interior or exterior application. Complex trim radii and angles were accommodated through the use of two disparate materials — metal and wood. Folded sheet metal in combination with wooden collars creates a seamless transition from ceiling



to post. Additionally, to accentuate the Endure system — and avoid the visual aesthetic of linear metal — larger metal panels were added in adjacent occupied spaces to create contrast between the open library space and the remainder of the building.

MANUFACTURER > BOUTIQUE

Wycliffe Golf and Country Club, Wellington, Florida

RULON INTERNATIONAL

As part of the nearly \$20 million renovation, the Wycliffe Golf and Country Club upgraded its facilities to include a new roof, renovated entrance lobby, updated club, and an upscale restaurant/formal dining room accessible only to members. Designed to complement the million-dollar views of the two championship golf courses but also pay homage to the club's rich, traditional history, the formal dining room incorporates Rulon Internationals Curvalon, a complex, vibrant, curved wood ceiling feature throughout the space. The wooden ribbons comprising the wood ceiling system were manufactured in 8 foot long segments and formed using mirrored concave and convex jigs to maintain a consistent and accurate radius. The opposing contours of the



panels were designed to be offset from one another and therefore the overall dimension of adjacent panels were unique and had to be considered when designing the ceiling system.













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APRIL-JUNE 2020 CISCA ACOUSTICAL INTERIOR CONSTRUCTION 2



COLLABORATION

Teamwork, openness and communication, say those involved, were the secret sauce behind the success of the Temple Beth Am project, one so unique it took home CISCA'S 2020 Construction Excellence Founder's Award.

BY AMY DREW THOMPSON

he design of the ceiling at Temple Beth Am — eye-catching, light-catching — is evocative of a desert tent, like that of Abraham as described in the Old Testament.

"Abraham's tent was always open and welcoming to visitors and strangers," said Steve Raininger, AIA and principal of Herman Coliver Locus Architecture. "And the ceiling at Beth Am, with its billowing and faceted effect, suggests a soft, light and airy textile, while using a warm, yet hard and more permanent natural material, like wood."

9Wood wood to be specific.

The spectacular project, the CISCA'S 2020 Construction Excellence Founder's Award winner, is a feat: 3,305 square feet of Western hemlock, a suspended, cross-piece grille in an intricate, dazzling design that complements the curved wood walls, drawing the eyes upward, toward the heavens, along with the sound.

"9Wood is the only manufacturer in the world that fabricates and sells acoustical wood ceilings and walls," said Project Manager Brad Leonard, who notes the varying applications of such a product.

"Acoustics is a big sector. Aesthetics are a big sector," he explained. "Wood is a living medium, which is a huge draw for architects looking to add warmth to their projects, for someone to just walk into their building and feel comfortable and alive."

In a house of worship, these are key — along with a design that allows sound to fill the space. A challenging design that Leonard says they weren't sure they could pull off when they saw the renderings, which CousticGlo — an acoustical subcontractor in the Los Angeles area — brought to 9Wood. The two companies had successfully partnered on past projects.

"We saw it and said, 'You guys are crazy,'" Leonard chuckled. "It was so custom!"

The company's insistence on a partnership, however — along with the beauty and uniqueness of the project — really got company engine's revving.

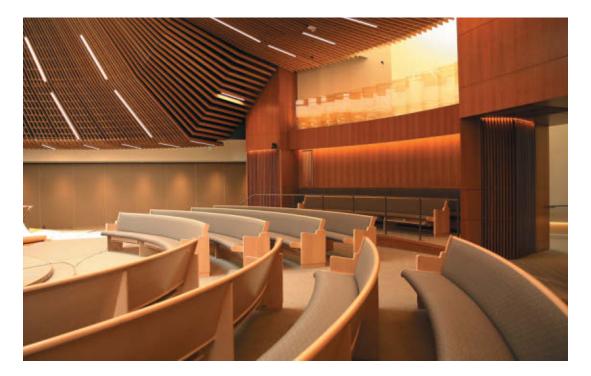
"We put our design-assist hats on and started working with their model and creating something we could actually produce and that CousticGlo could install and still meet their design intent."

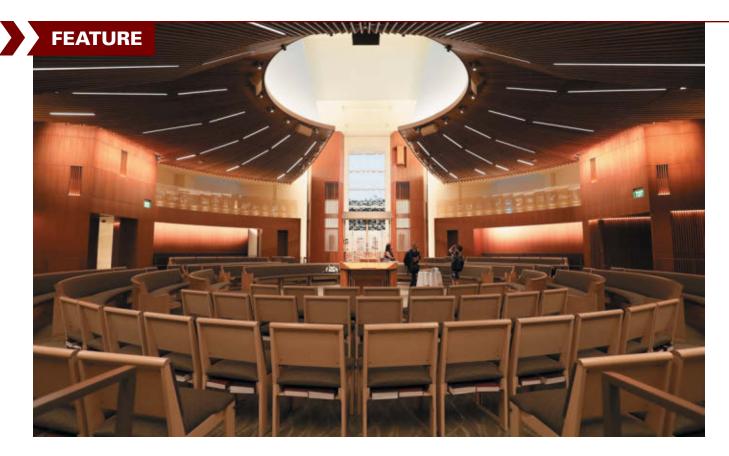
The original renderings, said Leonard, were truly wild, with wood twisting and bending, doing things the product really can't do. The result was a great deal of positive engagement with the architect and subcontractor, where 9Wood gleaned the details of their design intent.

"Once we truly understood the undulating tent concept, the circular pattern, that was when we were able to develop ideas into a product that could meet that vision."

It began with something close to a redrawing of the model by 9Wood's design assist and engineering teams, "using a 3D CAD format — and we were able to show that to the architects, have a dialogue that involved everyone so we could get input, and find a resting place that was buildable and installable."

Once there, physical samples helped dial the project in, as did shop drawings that broke the ceiling down into several elements that would be put in place in phases, allowing other contractors to work around the install.





Speaking of, that was a massive challenge — whether you ask Leonard, or CousticGlo's vice president and senior project manager, Johnny Reyes, who said the team saw the challenge and rose to meet it.

"I give my installation crew a lot of the credit, because I probably wasn't the easiest project manager to work for," he said, laughing. "It was such a one-of-a-kind ceiling, the engineering and legwork was massive, and I was always on their case to make sure we were getting things done."

How did they? At the outset, that was Leonard's question.

"How do you actually suspend the ceiling to achieve these sloped and angled conditions?" he asked, referencing the simplicity of a T-grid ceiling, where tiles simply snap into place.

"This is the opposite of that!" he said, laughing. "Nothing square, nothing on one plane. Not only was the ceiling sloping upwards, there is something like a 25-foot rise overall, bottom to top."

In the process, each matchstick spreads out, fan-like, as it moves away from the circle.

"It's a concentric feel," he said, "where it starts out wide and narrows as it gets close to the inner-circle. That creates two challenges — the height and the spacing or openness. We had to throw all standard suspension rules out the window."

Shipped as panels, in places the ceiling needed cuts for speakers and lighting mounts, then needed re-staining. The suspension process took three months, which included time for other trades to finish the necessary work.

The finished ceiling, with its warm, custom stain and a variety of panel types that create a floating appearance, is soaring, with transitions that break up the space. Refined design allowed for a brilliantly geometric effect, a look that's generally not possible for wood elements. Design-build, said Raininger, was ideal for the project, which allowed the architects to not only work through design and detailing hand-in-hand with 9Wood, but also to work through multiple design iterations, which kept the cost of fabrication and installation right on budget.

"The 'little sticks,' all together, just like the members of a sacred community, are greater than the sum of the parts," said Raininger of the award-winning project. "An open ceiling also provided for ideal room acoustics, allowing the sound of congregational singing to cross the space and reverberate beautifully so that the community can experience the joy and spirit of hearing itself sing."

For Reyes and his colleagues at CousticGlo, the Founder's Award is a cherry on an already-sweet sundae.

"This gives us even more of a sense of satisfaction on the project," he said, "knowing the end-users are happy, knowing the work was recognized and knowing we came in right under budget. It was successful on so many levels."

The curved walls and circular seats of the Temple Beth Am sanctuary "are meant to hug and hold the congregation," said Raininger.

Its features are wholly unique, all agree, but so, too, said Leonard was the openness and collaborative spirit that allowed this beautiful project to unfold so seamlessly.

"The open-door dialogue, which is a little bit rare in our industry," he said, "allowed the design to evolve to where all parties felt like it was a win-win. Going direct to the architect, to other people, when we needed to, allowed us to mold and blend the capabilities of the designers, the fabricators and the installers to great benefit," he said proudly.

"Without all of us working arm in arm, this wouldn't have been possible."

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The right ceiling for the space



FEATURE

Practical Suggestions for Implementing **Risks** Reductions in Force to Minimize Legal

BY LAURYN E. PARKS, MOMKUS LLC

n 1988, Congress enacted the Worker Adjustment and Retraining Notification Act (the "WARN Act") to provide some level of protection to workers by requiring certain employers to give their employees written notification at least 60 days in advance of an "employment site closing" or "mass layoff."1

An "employment site closing" is any shutdown, whether permanent or temporary, resulting in the employment loss of at least 50 employees during a 30-day period at a single site of employment.² A "mass layoff" is a reduction in force that results in the employment loss during any 30-day period for either (i) 50 or more employees that collectively comprise at least 33% of all active employees or (ii) 500 or more employees.³

Where notice is required under the WARN Act, the employer must provide written notice to the employee or, if represented by a union, to the employee's union representative.⁴ Notice must also be provided to the state agency or office responsible for carrying out rapid response activities and the chief elected official of the unit of local government where the closing or layoff is scheduled to occur.5

The WARN Act has a limited scope of application. It applies only to larger employers who have 100 or more full-time employees or 100 employees (including part-time employees) who work an aggregate of 4,000 hours per week, excluding overtime.⁶

However, many states have their own versions of the WARN Act, some of which offer more expansive protections to employees in their states by, for example, lowering the threshold of employees to which it applies.⁷

It should be noted that layoffs resulting from the COVID-19 virus and the sudden economic downturn may not require the employer to issue notices under the federal WARN Act. The WARN Act provides a specific exception when layoffs occur due to unforeseeable business circumstances or are the result of a natural disaster.



These provisions may apply to the COVID-19 virus. The Department of Labor has stated that "government-ordered closings may constitute unforeseeable business circumstances to which reduced notice applies."8

Furthermore, the governor of California recently issued an executive order expressly stating that employers were excepted from the strict notice requirements of the California WARN Act if the COVID-10 virus created "business circumstances that were not reasonably foreseeable."9 Even if an exception is claimed, however, an employer is still required under the WARN Act to give as much notice as is practicable and explain the reason for reducing the notification period.¹⁰

Temporary layoffs do not constitute an employment loss requiring advance notice unless there is an expectation that the layoff will last more than six months.¹¹ However, when a layoff is extended to longer than six months, the layoff is treated as an employment loss from the date of its commencement unless the extension is due to unforeseeable business circumstances. If an employer previously carried off a short-term layoff of less than six months but must extend the layoff past six months due to business circumstances, the employer must give notice when it becomes reasonably foreseeable that an extension will be required.¹² If layoffs occur due to a sudden, but foreseeably short, economic event, notification could be excused. However, because the employer bears the burden of proving that an exception exists, employers should provide notice if at all possible, even if one of the exceptions may apply.

Employers should also consider other options before implementing a large-scale reduction of their workforce, including:

- Furloughing employees
- Scheduling non-exempt employees for fewer days or hours
- Offering early retirement plans
- Offering an incentive in exchange for employee's voluntary separation
- Reducing payroll costs by reducing fringe benefits or requir-٠ ing greater employee contributions to benefit costs

References

- 29 U.S.C. §2102 29 U.S.C. §2101(a)(2) 2
- 3. 4.

- 29 U.S.C. \$2101(a)(2) 29 U.S.C. \$2101(a)(3); 20 CFR \$639.3(h) 29 U.S.C. \$2102(a); 20 CFR \$639.5(a)(1) 29 U.S.C. \$2102(a); 20 CFR \$639.6 29 U.S.C. \$2101(a)(1) For example, the Illinois WARN Act applies to any employers with 75 or more full time employee or 75 or more employees who work more than 4,000 hours per week in the aggregate excluding overtime. 820 ILCS 65/5(c)
- 54 FR 16042-01
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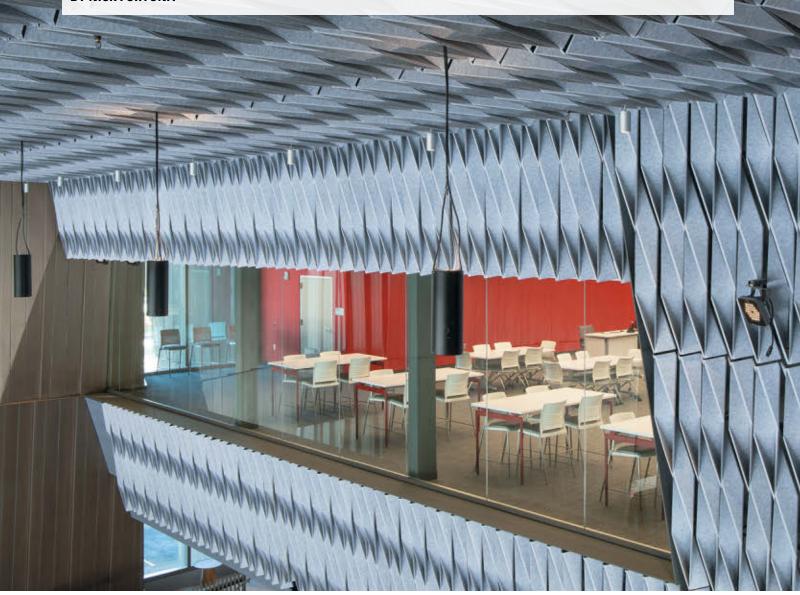
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FEATURE

ONE HEALTHY T-P ACOUSTICS INC. SCORES HIGH MARKS ON UNIVERSITY OF ARIZONA HEALTH SCIENCES BUILDING

BY NICK FORTUNA





he \$165 million Health Sciences Innovation Building is one of the newest and most eye-catching buildings on the Tucson campus of the University of Arizona. And given the times we live in, it just might be the most important building on campus too.

The 220,000-square-foot HSIB brings together students and faculty in medicine, nursing, pharmacy and public health, providing a world-class facility for simulation practice, clinical skills learning, laboratory study, lectures and classroom instruction. Completed in the spring of 2019, less than a year before the coronavirus pandemic, the nine-story building seems like just what the doctor ordered.

The HSIB houses the Arizona Simulation Technology and Education Center, where students and seasoned practitioners work together in a highly realistic hospital setting. It's also home to the new health sciences design program, a pilot course in which teams of medical students and faculty coaches work to "create actionable solutions to real-world health-care problems."

It just so happens that we have a major health-care problem on our hands right now. So, can the beauty and functionality of a state-of-the-art health sciences building help make it safe to go to the movies again? If the answer proves to be yes, then give some of the credit to Phoenix-based ceiling contractor T-P Acoustics Inc., with assists from manufacturers Arktura and Armstrong.

The three CISCA members teamed up with general contractor Kitchell and designer CO Architects on the strikingly beautiful building, which features a terra-cotta, glass-wall and metal-skin exterior. The interior includes classrooms, labs, offices, collaborative spaces, conference rooms, simulated health-care settings, a student lounge, a café and a bookstore, but all that takes a backseat to the interior's signature element.

The massive atrium is 90 feet wide, 220 feet long and stretches 80 feet into the air at its highest point. The interior was deliberately designed without columns so the school would have more flexibility in using the space. The atrium features stadium seating along one wall and can accommodate more than 1,000 guests for lectures and presentations in its "Forum" section. A grand staircase looks down on a large gathering space with tables and chairs.

The atrium clearly is meant to draw a crowd, but in a space designed for collaboration and learning, sound abatement was a key concern. Arktura manufactured multidimensional, multifaceted origami-like acoustic modules for the ceiling and walls, adding a layer of visual complexity to the design and eliminating the highly distracting reverberation commonly found in large, open spaces.

"The ceiling really defines the building," said Wayne Turcotte, vice president of T-P Acoustics. "When you walk in there, it kind of takes your breath away. You say, 'Wow, now that's an entranceway.'"

Arktura's SoftFold acoustic baffle system consists of modules installed at various angles for maximum aesthetic appeal and sound control. The SoftFold material, with a Noise Reduction Coefficient of 0.75, is made of polyethylene terephthalate, or PET plastic — the kind used in water bottles — and includes up to 50 percent recycled material.

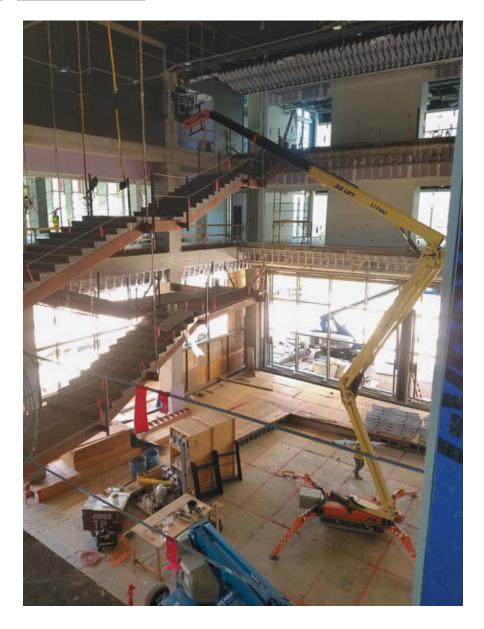
Derrick Amerson, president of T-P Acoustics, said the complex ceiling installation makes the immense atrium "very unique" and "one of a kind."

"As big as it is, it's very dramatic," Amerson said. "The average person typically doesn't look at the ceiling, but this one grabs you, makes you look at it and makes you think, 'Wow, that's very interesting.' It is spectacular, and it is breathtaking. It draws you in. You can't miss it."

During the design stage, the general contractor and T-P Acoustics traveled to Arktura's headquarters in Los Angeles to refine details and review mockups. One key concern was maintenance; the team wanted to ensure that the ceiling design



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would allow for easy access to mechanical and electrical components installed above the baffle system.

Each module consists of six pairs of faceted fins, and each pair is joined together by a bracket that attaches to the frame. Arktura set up a mockup version on its ceiling jig and demonstrated that by simply removing a few screws, the maintenance crew could quickly take a module apart and gain access to components above the frame.

Rob Kilian, co-founder and executive vice president of Arktura, said the baffle system has the four key attributes that the company strives for in a ceiling product: beauty, functionality, being customizable to the designer's needs and providing ease of installation.

"The atrium is fantastic," Kilian said. "It's really a testament to the customization and flexibility of the products that we sell, and being able to work with the architects to come up with something unique. With a building like this, you've got a lot of kids talking, and you've got people on their computers and phones, so reducing all that distracting noise is really the intent with a product like this."

Since there's a basement beneath the atrium's floor, there were strict weight limitations for the equipment used to install the ceiling. Initial plans called for dancefloor scaffolding, but due to scheduling challenges, T-P Acoustics had to use two spider lifts instead. A worker aboard each of the lifts would install one small section at a time about 16 square feet — before coming down so the lift could be moved.

A laborious process, the installation of 7,500 square feet of SoftFold material in the atrium took about three months to complete.

"We could only do a little at a time," Amerson said. "That was our biggest challenge."

All told, T-P Acoustics was hard at work for about 14 months, with more than a dozen workers installing about 150,000 square feet of ceiling grid and Armstrong Optima acoustic tiles. The smooth-textured Optima panels have an NRC score of 0.95 and a high light-reflectance value of 90 percent. They include up to 71 percent recycled content, they're washable, and they're resistant to impact, scratches, soil and sagging.

The building features rooms of various sizes for a broad range of applications, each with its own design and acoustic challenges. Some areas called for acoustic baffles with integrated lighting that add a pop of color while reducing noise and providing functional lighting.

Classrooms at the HSIB are "flipped," meaning student interaction is encouraged with whiteboards that can be mounted to and easily removed from walls, furniture on wheels and access to high-tech tools such as 3D printers. The eighth floor alone has 30 exam rooms.

Turcotte said the finished product is "beautiful," "gorgeous" and a "modern work of art." The HSIB already has had several high-profile guests, including Arizona Gov. Doug Ducey, who used the Forum to deliver a televised address on the state's response to the COVID-19 pandemic in March.

"From preconstruction to completing the project, all the way through the punch list, it was a very challenging project," Turcotte said. "I'm just proud of the manufacturers we worked with, along with the general contractor and design team. We were all a good fit.

"We were one of the few trades that was able to maintain the schedule and push it ahead. I think working with the manufacturers ahead of time helped push the project forward. There was a lot of accountability with the other trades in doing these ceilings."

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Cipe ID-19 and the Construction Industry

BY ADAM TURNER, NAYLOR ASSOCIATION SOLUTIONS **he 2019 novel** coronavirus, or COVID-19, has disrupted industries across the world, and the construction sector is no exception. With conditions changing every day, it can be difficult to stay on top of the guidelines and regulations coming out of the federal government and state governments as well as understanding how they affect the construction industry.

COVID-19 has caused all sorts of disruptions to construction companies' supply chains as well as the available workers and government agents needed to carry out projects. According to a survey conducted by the Associated General Contractors of America, 16% of its surveyed membership has experienced project delays or disruptions due to a shortage of equipment or parts. As the pandemic worsens in the United States, that number is expected to rise alongside those delayed from a lack of available craftworkers and government inspectors. Construction company owners can expect additional short-term and long-term ramifications from COVID-19's economic disruption. In the short-term, there will be an increase in missed payments from financially distressed owners as owners are forced to defer or cancel more scheduled projects. With new developments in the crisis surfacing every day, contractors and owners should also expect commitments and appointments from suppliers, workers and government agencies to become less reliable.

In the long term, prospects are even more grim as it's expected that other sectors will hold off on starting new construction projects until they have repaired their balance sheets, and governments at all levels will direct money away from construction and towards virus recovery, which combined will likely cause construction firms to close due to reduced work and cash flow.

Despite all the negatives coming out of the pandemic, there are a few silver linings for those in the construction sector able to continue their work in both the short- and long-term. Pandemic-related construction projects will soon be in high demand as state and local governments start spending on building, remodeling and repurposing healthcare, testing and lodging facilities to meet the demand created by COVID-19. The crisis has also seen commodity prices sharply drop in price, and this will probably continue for the foreseeable future.

The market isn't the only factor affecting the construction sector. The federal government and each state government has been churning out legislation to curb the spread of the virus and to cushion workers who might find themselves displaced due to the pandemic. However, some of this legislation has come at a cost to business owners, and it's difficult to keep track of what legislation affects each business.

The congressional response to the COVID-19 outbreak has come in four phases, two of which have already been completed. On March 6, President Donald Trump signed a \$8.3 billion that will go towards local, state and federal agencies fighting the outbreak, according to an article from NPR.

Phase two of Congress' response to the pandemic was the Families First Coronavirus Relief Bill, which President Trump signed into law March 18. The act requires business with fewer than 500 employees to provide both Paid Sick Leave and Paid Family and Medical leave. The standards require businesses to pay employees two weeks of paid sick leave to anyone who is showing symptoms of COVID-19 or who has to take care of someone due to the pandemic, and they are required to provide 10 weeks of paid family leave if they need to take care of a child under 18 whose school was canceled due to the pandemic. Employers will receive 100% payroll tax credits for both wages should they have to pay them. To protect businesses with under 50 employees, Secretary of Labor Eugene Scalia was expected to issue an exemption from some of these provisions before the act went into effect on April 2.

Phases three and four of Congress' plan has yet to be fully announced, but it is expected that they will contain provisions to focus on business and individual relief as well as possibly including spending on infrastructure and pensions.

All the changes going forward raise the question: How can construction companies and contractors minimize COVID-19's impact on their business? First, owners should check to see if they have a "force majeure," or superior force, clause in their contracts. These clauses will often stipulate that epidemics are a reason to adjust project time tables. It's vital to check contracts for this clause because some states, like New York, require them to specifically mention epidemics in the clause or else it's not a valid reason.

After doing so, it's vital to remain proactive as not to alienate your clients and potentially lose their business. Promptly deliver written notices of any delays and make sure the language of your notice doesn't box you in should other developments occur. Construction firms should also start gathering the facts about the delay including how long it may be and potential changes in cost. That way, they are able to quickly communicate this information to clients should they ask for it. Finally, firms and contractors should review all contracts going forward to ensure they include a force majeure clause that mentions epidemics to make sure they are covered in the future.

As new updates about the COIVD-19 crisis come in and the business landscape changes each day, CISCA is dedicated to keeping its members informed and up-to-date on the latest developments. For additional information, please refer to CISCA's resource page at https://www.cisca.org/i4a/pages/index. cfm?pageID=3503.

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Construction Contractors Must Plan Now to Meet Updated Revenue Recognition Rules

BY RYAN INLOW, CPA, MAULDIN & JENKINS



evenue recognition has always represented a challenge for the construction sector. In May 2014, the FASB in partnership with the International Accounting Standards Board released a much-anticipated update to GAAP standards for this complex area. Accounting Standards Update (ASU) 2014-09, Revenue from Contracts with Customers (Topic 606), as the guidance is titled, makes sweeping changes to revenue recognition in accounting and related reporting. As a result, contractors can expect their revenue recognition to vary dramatically in amount and timing from current patterns.

In a series of updates since ASU 2014-09 was first issued, FASB has amended the guidance further. Topic 606 can now be considered final (to the degree any GAAP standards are truly final). For affected companies that have not yet adopted the guidance, however, the necessary changes are just beginning.

FASB's core principle in the updated standard was ensuring that entities "recognize revenue to depict the

transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services." To that end, the guidance creates a five-step process:

- 1. Identify the contract.
- 2. Identify the performance obligations contained in the contract.
- 3. Determine the transaction price.
- 4. Allocate the transaction price to the performance obligations in the contract.
- 5. Recognize revenue as each performance obligation is met or satisfied.

Topic 606 details a great many tests and rules for implementing each of the five steps, too comprehensive for treatment in this article. There are a number of important concepts though that construction professionals should bear in mind as they begin delving into a serious study of the revised regulations.

KEY CONSIDERATIONS

Despite the detailed nature of the guidance, applying the five-step process it outlines will demand some amount of estimation. In addition, company representatives should be prepared to make reasonable interpretations and judgement calls based on the intent of the standard and the terms of a particular contract.

Whereas older guidance offered contractors a choice between percentage of completion or completed contract accounting methods, the new standard applies specific criteria that govern whether to recognize revenue at a single point or over time. Some methods of measuring relative completion status when recognizing contract revenue over time may render the cost-to-cost method unsuitable.

If the results will be essentially the same, it is acceptable for contractors to apply ASC 606 to a portfolio of contracts rather than individually accounting for each. Companies should be able to provide documentation supporting the assumption that the portfolio method of accounting will not lead to materially different results when electing this option. Estimates and judgments used in applying the portfolio method must be appropriate for the nature and total amount of revenue in the portfolio.

To help users more readily understand the contents of financial statements. contractors are required under ASC 606 to make additional disclosures, both quantitative and qualitative. For many contractors, the new disclosure requirements will necessitate changes to internal systems and processes. Balance sheet presentation of contract assets and liabilities will demand complex analysis as well in order to provide adequate transparency. Company leaders should not underestimate the difficulty and time needed for meeting new disclosure and balance sheet requirements; to remain in compliance, entities must undertake a serious effort now.

Other important considerations:

- ASC 606 does not apply to certain types of contracts that include leases; insurance contracts covered under ASC 944; guarantees other than those tied to product or service warrantees; and some nonfinancial exchanges.
- Some types of obligations and contractual rights are similarly excluded.
- Nonfinancial transfers between contractors and non-customers may in some circumstances merit the same treatment as that described in ASC 606 guidance for customer contracts.

TAKE ACTION NOW

85%

Given the scope of the changes, a sense of urgency in regard to understanding and transitioning to the new regulations is fully warranted. Companies that haven't yet addressed the issue are likely to discover multiple questions as they begin the process of adapting to ASU 2014-09, some of which may be answered in the FASB's Topical Reference Guide. However, it is important that all organizations impacted by the updated revenue recognition standards seek qualified professional help in interpreting and applying the regulations.

Ryan Inlow, CPA, specializes in audit and tax services for closely held entities, non-profit organizations and employee benefit plans. Inlow has a wide variety of industry experience with current and former clients in the construction industry. He serves as the partner in charge of the Albany Office, chair of the firm's Executive Committee, and as the practice leader for the Entrepreneurial Services practice firm-wide. For more information, visit www.mjcpa.com.

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with DA A ______ in the Construction Industry

BY TOM RICE, BUSINESS CONSULTANT COMMAND ALKON

he exponential growth of big data has had a profound effect on the heavy building materials industry. Per Techjury, every person this year will generate 1.7 megabytes of data in just a second. In 2019, internet users generate about 2.5 quintillion bytes of data each day. In addition:

- Large infrastructure projects are voluminous requiring an average of 130 million emails, 55 million documents, and 12 million workflows
- 95.5 percent of all data captured goes unused
- 13 percent of construction teams' working hours are spent looking for project data and information
- 30 percent of engineering and construction (E&C) companies are using applications that don't integrate with one another

The correct use and analysis of the vast amount of data available to a business has the potential to transform supply chains as we know them, but also the power to disrupt. Without the appropriate tools and expertise to manage large amounts of data, organizations can become overwhelmed and unable to gain valuable insights, causing issues across the supply chain and wider business functions. STOCK.COM/CHAAY TEE

While construction is one of the least digitized industries, firms are currently transitioning from paper-based processes to digital workflows. Harnessing the data from these digital processes will result in more valuable insights, better decision making, improvements in efficiencies and business growth.

NEED FOR PROPER TOOLS TO MANAGE DATA

This staggering amount of information is hard to manage without the right tools in place. Most companies either simply avoid the issue, or need guidance as they try to sort through their options to properly leverage their data. Getting beyond the big data glut to data-driven decisions requires a four-pronged approach:

1. Get the right talent, tools and processes in place.

Big data presents unique challenges for the construction industry. Understanding which data could be useful and how this data translates into business intelligence requires a clear understanding of your organization's overall goals and vision. With clear direction of how you want your data to work for you, your company can extract meaningful insights. But during this period of transition from data glut to data clarity, it's important to clearly communicate the time frame and rollout process, so you can more easily manage expectations.

2. Collect and analyze data with an end goal in mind.

Big data can be used to improve performance or processes. But to accomplish these goals, you'll need personnel who have both worked in the built environment and understand project work but also have critical research and analytical skills. Companies that don't invest in the right people often experience failures and are slow to realize a return on their investment (ROI). But this important step can help your firm drive performance and generate strategic business insights.

3. Move beyond siloed data to data integration.

Like many other industries, construction is notorious for storing data in silos or scattering it across systems, desktops, phones, tables, hard drives, and servers — not to mention cloud locations, other devices, and unstructured data like blueprints, timecards, emails and PDFs. Data integration can be a difficult, but not insurmountable, challenge.

Leverage internal or external skills to turn data insights into actionable insights.

Data analysis is a highly specialized skill set, and frontline managers and field staff rarely understand how to implement analytical procedures or use analytical tools. Yet to make your data analysis projects effective, you need cultural buy-in. In an industry where 35 percent of total costs can be attributed to waste and remedial work, this approach to using big data in the best possible way just makes sense.

HARNESSING BIG DATA TAKES THE RIGHT TOOLS

The E&C industry is making huge strides in harnessing big data to improve business outcomes, gain better visibility into their operations, and streamline their business processes. It's all done with a little help from better tools and processes:

- Data-driven predictive modeling. Some forward-thinking companies are building real-time systems that enable project owners to visualize — and adjust — project design during the early design stages, to speed up the design process, reduce waste and delay, and ensure accurate cost estimates.
- Data capture and usage across the business. Rather than have construction teams waste hours looking for project data

and information — a problem that's plagued the industry for years — some leading firms are using prefabrication methods, connected jobsites, BIM, virtual reality, wearables, geolocation, and sensors to track employees, equipment and material movement, and further optimize tools, resources and worker productivity.

- Better collaboration and efficiency. Given increasing E&C project complexity and growing demand for new E&C projects, industry leaders recognize that collaboration is a key part of achieving project consistency and efficiency across multiple stakeholders. Many firms use big data to create automated workflows between stakeholders on a project and keep all relevant personnel informed with relevant real-time updates.
- Supplier collaboration platform links trading partners and automates processes.

Transactions are executed and information collected to deliver insights with a speed and accuracy that fuels success on the heavy jobsite. The platform business model can gather data from IoT devices, telematics and more, running analytics to inform about a business' performance. Critical business processes in a company and across its trading partners are automated, whether the processes are for procurement, production, dispatching, selling, tracking or tracing heavy building materials.

TWO WAYS TO GAIN ACTIONABLE INSIGHTS FROM BIG DATA

Good data practices and a solid data strategy will continue to help E&C companies develop and implement sophisticated analytics plans in the years ahead. Companies need to:

- Take advantage of business intelligence (BI) tools like dashboards, which store well-defined data in a central location where it can be displayed in a visual format for easier consumption. This enables users to aggregate separate data streams and compare the information within them in a single place and monitor performance in real time.
- Include some level of machine learning (ML) and artificial intelligence (AI) to help users gain insight from data and make predictions, discover relationships between data points, identify customer or market segments more intelligently, and identify and learn from patterns hiding in large or unwieldy data sets.

Actionable insights from deep analysis of big data from your heavy building materials operations can lead to improved productivity, streamlined operations and lower costs if dealt with properly.

Tom Rice is a civil engineering graduate who serves as a business consultant and assists with the Buildlt team at Command Alkon. He spent many years in the vertical construction world focusing on overall construction management and value engineering and design. For more information, visit www.commandalkon.com.

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HOW TO CREATE AN OSHA-CONPLANE SAFETY PROGRAM

egardless of the type of construction you perform, OSHA essentially requires that a safety program be developed and taught to any employee or crew member. Having a safety program written for and taught to employees is standard practice for commercial contractors who are accustomed to having to do everything by the book, but is often disregarded by residential contractors. Unfortunately, not having a safety program that is compliant with OSHA standards in place if an inspection is done can have serious consequences.

Creating an OSHA-compliant safety program doesn't have to be an extremely tedious, time-intensive

undertaking. In fact, OSHA has many resources directly on their website on how to create a safety program for a variety of different industries. You may even be lucky enough to find a sample safety program which you can use as a template for creating your own.

As a contractor and the owner of your company, it can't be stressed enough that your personal knowledge of OSHA safety requirements will be a key factor in designing a safety program. The ever-popular OSHA 30-Hour Training Course is highly recommend for contractors, including company owners as well as any supervisors or managers. While the 10-Hour Training Course is useful for crew



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members, the 30-Hour Course should really be considered mandatory for anyone managing a construction site.

It is also worth mentioning that if you are in more of a management position and do not actually perform contract work on jobsites, it may be worthwhile to invest in training for a dedicated safety supervisor employee.

FOUNDATION OF DEVELOPING A SAFETY PROGRAM

The exact type of safety program you create will have a lot to do with your personal business and the type of contracting work you do. For example, a contractor that installs siding likely won't have as greater concern over safety at heights like a roofing contractor. Similarly, the materials you work with can also have an effect on safety. Anything considered hazardous in nature will need much more stringent and specific safety rules in place.

With that being said, here is a rundown of the basics needed for a safety program.

• Thoroughly Analyze Your Worksite for Hazards

The very first thing you should do is analyze your worksite, or an example of a typical worksite, for any potential hazards that can be found. This includes risks of falling, electric shock, dangerous use of chemicals, injury from power tools and more. Essentially, if something could harm a worker it needs to be addressed and its prevention be taught to anyone on the worksite. The OSHA 30-Hour Course will address essentially any hazard you could think of.

• Write a Company Safety Policy

Once hazards have been discovered it is time to write an official company safety policy. This should be a detailed document that not only covers all basic worker safety as explained by OSHA, but also specific hazards found on your worksites and how to avoid them. This policy should be reviewed with every employee when they begin working for your company.

 Develop a List of Work Rules and Safety Practice

It is also recommended that, aside from your company safety policy, you also provide a smaller document that lists worksite safety rules and practices. It is ideal to provide a handbook for crew members to keep and review. This document doesn't need to go into as much detail as the official safety policy.

Train and Maintain Employee Safety Knowledge

Employee training is the key to reducing the chances of injury and should involve training for both OSHA safety standards, as well as any specific training required for your particular company. If it is within budget it is an exceptional idea to send employees to OSHA training courses, but at minimum any employees that perform as managers should get certified.

You should also take the time to ensure your employees are knowledgeable about

your specific field of work. For example, if you're a roofer that specializes in installing a specific type of architectural shingle from a manufacturer, any new employees should go through a brief training process provided by yourself to ensure they understand the basics.

 Continue with Safety Education as Changes to OSHA are Made

It goes without saying that on a semi-annual basis your safety program should be reviewed to ensure all safety protocols are still effective. OSHA doesn't often make serious changes to safety standards, but it isn't worth the risk either way.

The right safety program will keep you and your workers safer while ensuring that in the event of an inspection, your business will not be in danger.

Paul Brown received his Bachelor of Arts from the Plan II Honors Program at The University of Texas at Austin and his MBA from The Fuqua School of Business at Duke University, and received his LEED Green Associate credentials from the US Green Building Council. He now leads the team at Bautex Systems, overseeing operations and strategic growth.

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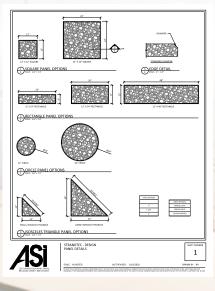
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