# Image: Market State State<

Pushing the envelope of PEMB design Indoor air quality and healthy schools One-stop technical training in Salt Lake City

Dramatic

Visuals

# **CONTENTS**







ΡΗΟΤΟ: ΩΡΗΟΤΟ



## 14 SPECIAL FEATURE: DRAMATIC VISUALS

Metal can create very dramatic designs in a variety of different settings. We look at how architects and designers have incorporated metal architectural products into the interior of their projects.

# 17 INDUSTRY REPORT: PUSHING THE ENVELOPE OF PEMB DESIGN

Inspired by the question of why architects often overlook pre-engineered metal building systems, Mark Roddy, FAIA, and Ryan Haines research the various forms metal buildings can take. Discover some of the research methodology behind Parametric Designed Metal Buildings or PDMB Variations.

## 20 BUILDING PROFILE: WORKFORCE TRAINING

The Westpointe Workforce Training and Education Center (WWTEC) at Salt Lake Community College (SLCC) in Salt Lake City, showcases hands-on workforce education for the 21st century. The state-of-the-art technical education facility helps students prepare for successful careers in regional business and industry.

## **METAL FINE POINTS: INSULATION SYSTEMS**

- 24 Specifying Metal Building Insulation
- 25 Selecting Insulation for Greater Efficiency, Style and Resiliency

## 35 FABRICATORS SPECIAL SECTION

- 36 Unitized Façades
- 39 The 8 Basic Functions for Great MCM Fabricators
- 41 Forming Different Types of Metal

# Departments

- 3 Editor's Corner
- 6 Online Contents and Events
- 8 Constructive Insights
- 9 Industry News
- 26 Market Feature: Office and Retail
- 43 Product Brief: Light-Gauge Steel Framing
- 44 New Products
- 45 Product Catalog: Metal Composite Material Panels
- 46 Product Catalog: Rainware, Ridge Caps and Trim
- 47 Ad Index
- 48 Top Honors



**On the cover:** Cambridge, Md.based GKD-USA Inc.'s OMEGA 1520 metal mesh in Venetian Gold creates a dramatic background for a two-story staircase in the new headquarters for UGI Utilities Inc., Denver, Pa. **Turn to page 14**.

# **SPECIAL FEATURE**



#### By Marcy Marro, Editor

While we usually showcase the many ways metal wall and roof panels can be used on the exterior of a building, it's not as often we look at how metal panels, fabrics, coils and meshes can be brought inside. Metal can create dramatic designs in a variety of different settings, and can be decorative, functional or both. Whatever the industry, there are plenty of opportunities to bring metal into a building's interior.

As Tripp Sandford, co-founder of Móz Designs, Oakland, Calif., explains, "Metal is not only a practical solution in commercial interior design, it can also elevate any space with beautiful texture and dimension."

"We love to take a classic, durable material like aluminum and transform it with beautiful shapes, colors, and grains to reflect the energy of a space," adds Sandford. "We're always thrilled to collaborate with our clients to bring beautiful, recyclable installations to life."

Shawn Crismond, territory sales manager for Cambridge, Mass.-based GKD-USA Inc., notes that metal fabrics adorn some of the finest hotels, museums, office buildings and restaurants around the world. "Our customers are creative designers, architects and artists and their ideas manifest in many interesting and unique designs. Our technological heritage lets us determine the best way to aesthetically, effectively and safely apply our metal mesh fabric in varied situations and in often uncommon ways. From partitions for defining space to safety and security, or as a cladding material for walls, columns and



ceilings to specialty applications, we are always excited to see what challenge our clients will bring us next."

Metal can provide a wonderful accent to the interior of many types of projects. Here are some recent projects that showcase the many ways metal can be used inside a building.

#### **RESTAURANTS**

#### GATSBY, Washington, D.C.

Upon entering GATSBY, a reimagined American diner from KNEAD Hospitality + Design in Washington, D.C.'s Capital Riverfront neighborhood, guests pass through a glass vestibule where the restaurant envelops them in a contemporary twist on Art Deco and the roaring '20s. The host stand is wrapped in a walnut and zinc decorative fretwork pattern and topped with a rich, green marble top and tabletop lighting, exudes glamour, luxury and symmetry. It is the first of many aesthetic choices the designers, Washington, D.C.-based architecture firm //3877, made to promise an authentic design experience.

Once inside, the restaurant the ceiling height expands, revealing an oval-shaped bar and overhead perforated metal bar canopy. Inspired by the era's iconic flapper dresses with stacking tiers of fringe, the bar, which is clad in a rich, green basketweave tile from Tile Bar, is topped with a Silestone bar top with a layered bullnose edge. Serving as both a decorative element and functional lighting piece, the overhead bar structure highlights the top of the bar with perforated metal panels by Art Display that are internally luminated to provide a soft, ambient glow. The combination of materials complements the restaurant's color palette of black, white, dark walnut and jewel tones of red, blue and green.

Throughout the center of the second floor, a metal structure sits above the plush shagreen booths, reminiscent of a vintage bird cage. Above the booths and bird cages, a celestial ceiling features the Zodiac and adds accents of blue and gold to the room. Art deco chandeliers continue the restaurant's aesthetic throughout the second floor and the private dining room.

#### **SPORTS & RECREATION**

#### **Footprint Center, Phoenix**

The home of the NBA's Phoenix Suns has undergone a number of name changes in recent years. Now known as the Footprint Center, the arena recently underwent a massive interior renovation and entertainment expansion, which included the addition of several club levels and lounges. Designed by HOK, San Francisco, each lounge features a column-to-ceiling beam structural feature clad in a custom, deeply rich bronze finish with visible textures.

For the club lounges, Pure + FreeForm supplied its 3-mm interior face-fastened column covers and ceiling beams in Mature Bronze, which gives an industrial look that complements the lavish interiors. Amenity upgrades include themed bars and restaurant spaces, which are wrapped in 0.8-mm aluminum veneer millwork in Deco Bronze 2, a rich, matte bronze finish with an antiqued distressing.

In the arena's Ultra Club lounge, Móz Designs created custom Laser Cut wall screens. The eyecatching design features an intricate nature-inspired pattern with Móz's Black Sand powder coat finish. The design is backlit for effect and is paired for sleek velvet and leather furniture, creating a sophisticated, luxe tone for the lounge. The panels are made from 100% recyclable solid-core aluminum, combining beauty and sustainability to create a unique accent wall material that can be repurposed.

#### Raiders Tavern and Grill, Henderson, Nev.

Located within the M Resort, the Raiders Tavern and Grill showcases a variety of Raiders memorabilia and décor. With more than 45 HDTVs, the restaurant and bar offer a perfect place for Raiders fans to spend game day.

Designed by Las Vegas-based Marnell Companies, the project features a floor-to-ceiling space divider made of wood and wire mesh panels supporting two TVs for customers waiting for a seat. Rectangles of varying sizes frame wire mesh pattern M22-37 in a stainless steel finish from Mukwonago, Wis.-based Banker Wire. The combination of materials alludes to the team's colors with dark stained wood and black metal frames paired with the silver tones of the metal mesh.

While decorative, the metal space divider also acts a privacy screen between customers of the bar and the resort's expansive casino. With a 66.2% open area, M22-37's twin wire lock crimp pattern offers glimpses of the games and machines beyond the wall. Additionally, the floating section of wire mesh and dark wood define the space.

#### **HEALTH CARE**

#### Intermountain St. George Regional Hospital, St. George, Utah

The new Intermountain St. George Regional Hospital system features a massive, monumental staircase that connects the hospital floors with



bright pops of color, contrasting with the otherwise white ceilings and walls. HDR Inc., San Francisco, selected oxidized copper as the inspiration for the staircase color, but had concerns with weight, cost and maintenance of the natural material.

Pure + FreeForm supplied its 3-mm aluminum sheet metal panels in Astral Copper, a custom oxidized copper color for the staircase cladding. The rich blue color is a copper-hybrid that captures the tones and textures of oxidized copper. The aluminum sheet is flexible enough for the custom millwork application. By using the custom-finished aluminum, the color matches the exact tone of oxidized copper desired. And instead of using natural copper, aluminum provided a lower cost, is lightweight, ease of fabrication and the ability to choose the right color. The flexibility of the panels allowed for LED lighting, which brings added dimension to the flat surface while still meeting the design and space needs.

#### Rapid City Regional Health, Rapid City, S.D.

The lobby at the Rapid City Regional Health Center in Rapid City, S.D., features 31 of Móz Designs' Laser Cut panels in its signature Blendz Patina 131 polycoat. The project was the largest construction project in the health care system's history, and the center's goal was to become more patient centric by improving upon the experience of the patient's care, stay and comfort. The facility's atrium lobby increases connectivity to the inpatient unit with allprivate beds as well as the hospital's office building.

Specified by Nashville, Tenn.-based Earl Swensson Associates, the panels are wrapped around the lobby's windows, with the Blendz Patina's timeworn texture pairing beautifully with the center's natural wood and brick architecture, creating a sense of connection between patients and the surrounding environment. As a nod to the mountains, the project was designed with a custom rocky pattern, allowing the intricate solid-core aluminum panels to cast beautiful shadows along the curved floor of the atrium.

#### **OFFICES**

#### Boston Dynamics, Waltham, Mass.

Boston Dynamics, an engineering and robotics design company, was in need of a new headquarters that was as modern and forward thinking as the company itself. Designed from an existing building, the new space has sectional areas that could be transformed into a Town Hall space for employees as well as a robot gallery. Working with the design team at Boston-based Bergmeyer Associates, Pure + FreeForm developed a custom hairline "Muntz" metal that was used in the millwork throughout the facility. Most notably, the 0.6-mm cladding, laminated to a wood backer and installed by the millwork subcontractor, covered the cantilevered meeting spaces that overlooked most of the open-concept facility. By using a finish that was high in gloss to capture light and movement, but was subtle in color, designers were able to align the metal exactly with the other site materials.

#### Centra Credit Union Headquarters, Indianapolis

RATIO Architects, Indianapolis, enlisted Móz Designs to create a series of colorful yet calming wall panels on each floor of Centra Credit Union's new 55,000-square-foot headquarters building. RATIO's design team chose 98 Terrace Vertical Wall Panels in Gradient Aurora Matte to match the company's ocean blue logo. Its waterfall-like pattern transitions from crisp white to deep blue and is paired with textural carpet plank and natural wood stairs. Designed with Móz's Terrace Wall System, the feature wall connects each level of the multistory building, allowing its vibrant composition can be experienced both inside and out. Creating a seamless, continuous look that caters the building's interior, the panels line the walls and stairwells of each corridor. Additionally, the custom-designed panels create a soothing work atmosphere, inviting coworkers to use the central collaborative spaces.

#### UGI Headquarters, Denver, Pa.

Wilmington, Del.-based Bernardon oversaw design for UGI Utilities Inc.'s new headquarters, including showcasing the building's main lobby.

The dramatic, two-story space was dubbed "Central Park" by the design team, since it's the epicenter of the building, connecting the two wings of the facility. A two-story floating staircase that adjoins conference rooms, a café and leads to an outdoor landscaped garden area, is the highlight of the central meeting place. The design team sought to define the space with a backdrop to showcase the staircase.

Decorative metal mesh from GKD-USA Inc., Cambridge, Md., was robust enough for the job, was subtle and the correct scale. Additionally, the light reflective added dynamic visual interest while maintaining the desired warmth. "The material was perfect," says Rebecca Blake Cardamone, IIDA, project manager at Bernardon. "It was just on the edge of the client's comfort zone," adds Robin Tait, AIA, director of interior design at Bernardon. "The copper-colored mesh straddled that line between modern and warm elegance."

To meet safety codes, the staircase needed structural reinforcements. By involving the structural engineer and GKD's project engineer, Noel Justice, engineers were able to edit the structural steel to the slightest possible framework so not to detract from the aesthetic of the mesh. Justice then skinned the skeletal structure with GKD OMEGA 1520, a stainless steel product coated in Venetian Gold.

The Venetian Gold metal mesh shimmers in the light of the large sculptural chandelier and cove lighting, complimenting, and contrasting the earthy stone and wood finishes found throughout the building. The staircase and metal mesh creates a dramatic visual statement with a modern flourish for the otherwise traditional office building.

#### 4747 Bethesda, Bethesda, Md.

ZGF Architects, Washington, D.C., created a dramatic staircase feature wall to offer a show-stopping lobby experience in this commercial office building. The architects used Banker Wire mesh pattern SZ-4 in stainless steel and copper for a backdrop feature wall that the reception desk is set against. Ruben Quesada, designer, ZGF Architects, says, "In regard to the wire mesh finish, the combination of the copper and stainless steel is not only unique, but sophisticated. The high quality of the material warrants a front-of-house application; this mesh should not be hidden."

Fabricated by Synergi, Elkridge, Md., the feature wall spans three stories from the lobby to the two office floors, with the wire mesh flanking the ceremonial staircase to create a glamorous focal point that underscores the building's sophisticated design scheme.

According to Quesada, the transparency of SZ-4 was a key factor. "Essentially, we wanted a mesh that was transparent enough to see the other end of the lobby, but still provide enough mystery as to who was walking behind it. This single characteristic allowed us to lean on the wire mesh as the main material and focus of our design."

